Traffic Noise Technical Study

Technical Memorandum

US 20/26, Corridor Study Jct I-84 to Eagle Road

Ada and Canyon Counties, Idaho

Project No.: STP 3230 (106)

ITD Key No.: 07826

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Prepared for:

Parametrix, Inc.

7761 W. Riverside Drive, Suite 201

Boise, ID 83714-1336

Idaho Transportation Department

3311 W. State Street

Boise, ID 83703

Prepared by:

Axiom-Points, LLC.

PO Box 595

Star, ID 83669

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KEY ACRONYMS AND TERMS

CFI	Continuous Flow Intersection
COMPASS	Community Planning Association of Southwest Idaho
dB	Decibels
dBA	A-Weighted Sound Level in Decibels
DHV	Design Hour Volume
CFR	Code of Federal Regulations
Ft	Feet
FHWA	Federal Highway Administration
ITD	Idaho Transportation Department
Leq	Equivalent steady-state sound level
NAC	Noise Abatement Criteria
ROW	Right-of-Way
SFR	Single Family Residence (one dwelling unit)
TNM	Traffic Noise Model

1.0 INTRODUCTION

This Technical Memorandum documents a traffic noise analysis, for a Type I project, that was conducted to evaluate the impacts of alternatives for the addition of through travel lanes along the US 20/26 corridor, beginning at its existing intersection with Interstate 84 (I-84) at milepost (MP) 25.00 and extending east approximately 15 miles through the existing intersection with Eagle Road to MP 40.44. The additional lanes would increase capacity along this section of US 20/26 and help to enhance travel times for motorists using the corridor. The analysis included a review of existing and planned land use adjacent to the corridor.

The analysis was completed in accordance with federal policy and guidelines as stated in Title 23 of the Code of Federal Regulations Part 772 (23 CFR 772). The main objectives of 23 CFR 772 are "†o provide procedures for noise studies and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways approved pursuant to Title 23, United States Code (U.S.C.)."

The Idaho Transportation Department (ITD) has also adopted the Traffic Noise Analysis and Abatement: Policy and Procedure Manual (ITD Noise Policy [May 2011]), which indicates that a traffic noise impact occurs when the predicted level of noise approaches or exceeds the Federal Highway Administration's (FHWA) noise abatement criteria (NAC). "Approaches" is defined as within one A-weighted sound level in decibels (dBA) of the NAC, or when the predicted level "substantially exceeds" the existing noise level. "Substantial" is defined as 15 dBA or greater. These criteria have been applied to adjacent sensitive land uses along the corridor as defined in the Noise Criteria section (Section 2.0) of this memorandum.

The memorandum includes descriptions of noise; traffic noise criteria; the existing noise environment; the study methodology used to conduct the analysis, including assumptions that were used in the noise model; and the noise-sensitive areas that were evaluated.

Major crossroads were used within the corridor was to delineate geographic units, identified by existing land uses. A description of each representative area is provided in the Methodology and Assumptions section of the memorandum, and Figures 1-8 depict the receiver locations and the 165 identified sensitive receivers.

1.1 PROJECT BACKGROUND

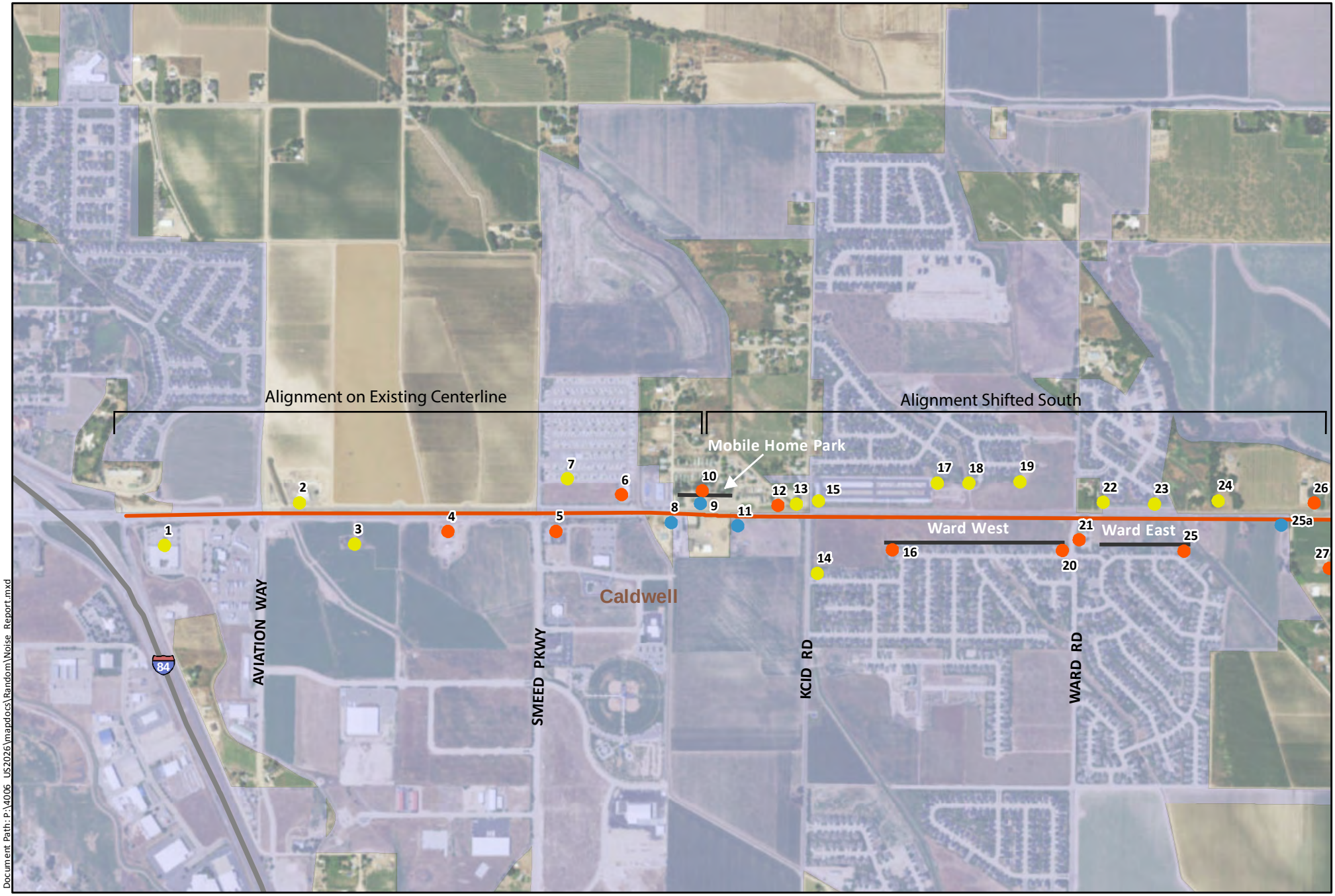
The improvements would include widening and improving approximately 15 miles of US 20/26 between I-84 and Eagle Road to accommodate 2040 forecasted traffic

volumes. The project would widen the highway to six lanes with a center median. Access control measures would be implemented where possible to improve safety. The project would also include the addition of facilities for pedestrians and bicyclists (e.g., sidewalks and shoulder/bikeway, multi-use path). Additional right-of-way (ROW) would be acquired to accommodate the improvements, including approximately 200 feet between I-84 and Meridian Road and approximately 140 feet between Meridian Road and Eagle Road.

The roadway improvements would widen equally around the centerline, except for three primary alignment shifts at the western end of the corridor. These shifts would be used to minimize impacts to historic and Section 4(f) properties and high-voltage power lines, and to reduce the overall number of residential and commercial property impacts. Specifically, widening would shift from the centerline to the south from a point west of KCID Road to a point west of 11th Avenue. Just west of 11th Avenue, the alignment would shift from the south to the north of centerline until a point just east of Star Road, where it would transition back to centerline.

Intersection improvements along the corridor would include signalization, expansion, and channelization to facilitate traffic flow. Signalized intersections are planned every half-mile between I-84 and Middleton Road, 1 mile between Middleton Road and Black Cat Road, and every half-mile from Black Cat Road to Eagle Road. In addition, to accommodate projected traffic volumes, Continuous Flow Intersections (CFI) are planned for Middleton Road, Star Road, Linder Road, Meridian Road, Locust Grove Road and Eagle Road. At these CFI locations, ROW acquisition needs would increase up to approximately 250 feet.

At the western end of the corridor, between I-84 and Aviation Way, improvements would include widening US 20/26 by one lane in each direction, adding to the two lanes in each direction constructed in 2007. From Aviation Way to Smeed Road, the recently constructed six-lane roadway would be utilized and not modified. For both of these western segments, the existing median would be utilized to the extent possible, with some areas of new median added.



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Parametrix

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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Receiver Number

- No Impact
- Impact
- Relocation
- Noise Barrier Considered
- Proposed US 20/26 Centerline
- Railroad
- County
- Boise
- Caldwell
- Eagle
- Kuna
- Meridian
- Nampa

FIGURE 1
Receiver Locations

US 20/26 Corridor
Preservation Study

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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Receiver Number

- No Impact
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- Meridian
- Nampa

FIGURE 2
Receiver Locations

US 20/26 Corridor
Preservation Study

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Receiver Number

- No Impact
- Impact
- Relocation

- Noise Barrier Considered
- Proposed US 20/26 Centerline
- Railroad

- County

- Boise
- Caldwell
- Eagle
- Kuna
- Meridian
- Nampa

FIGURE 3
Receiver Locations

US 20/26 Corridor
Preservation Study

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Parametrix

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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Receiver Number
- No Impact
- Impact
- Relocation

- Noise Barrier Considered
- Proposed US 20/26 Centerline
- Railroad

- County

- Boise
- Caldwell
- Eagle
- Kuna
- Meridian
- Nampa

FIGURE 4
Receiver Locations

US 20/26 Corridor
Preservation Study

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Parametrix

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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Receiver Number
- No Impact
- Impact
- Relocation

- Noise Barrier Considered
- Proposed US 20/26 Centerline
- Railroad

- County

- Boise
- Caldwell
- Eagle
- Kuna
- Meridian
- Nampa

FIGURE 5
Receiver Locations

US 20/26 Corridor
Preservation Study

Document Path: P:\4006_US2026\mapdocs\Random\Noise_Report.mxd

Parametrix

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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Receiver Number

- No Impact
- Impact
- Relocation

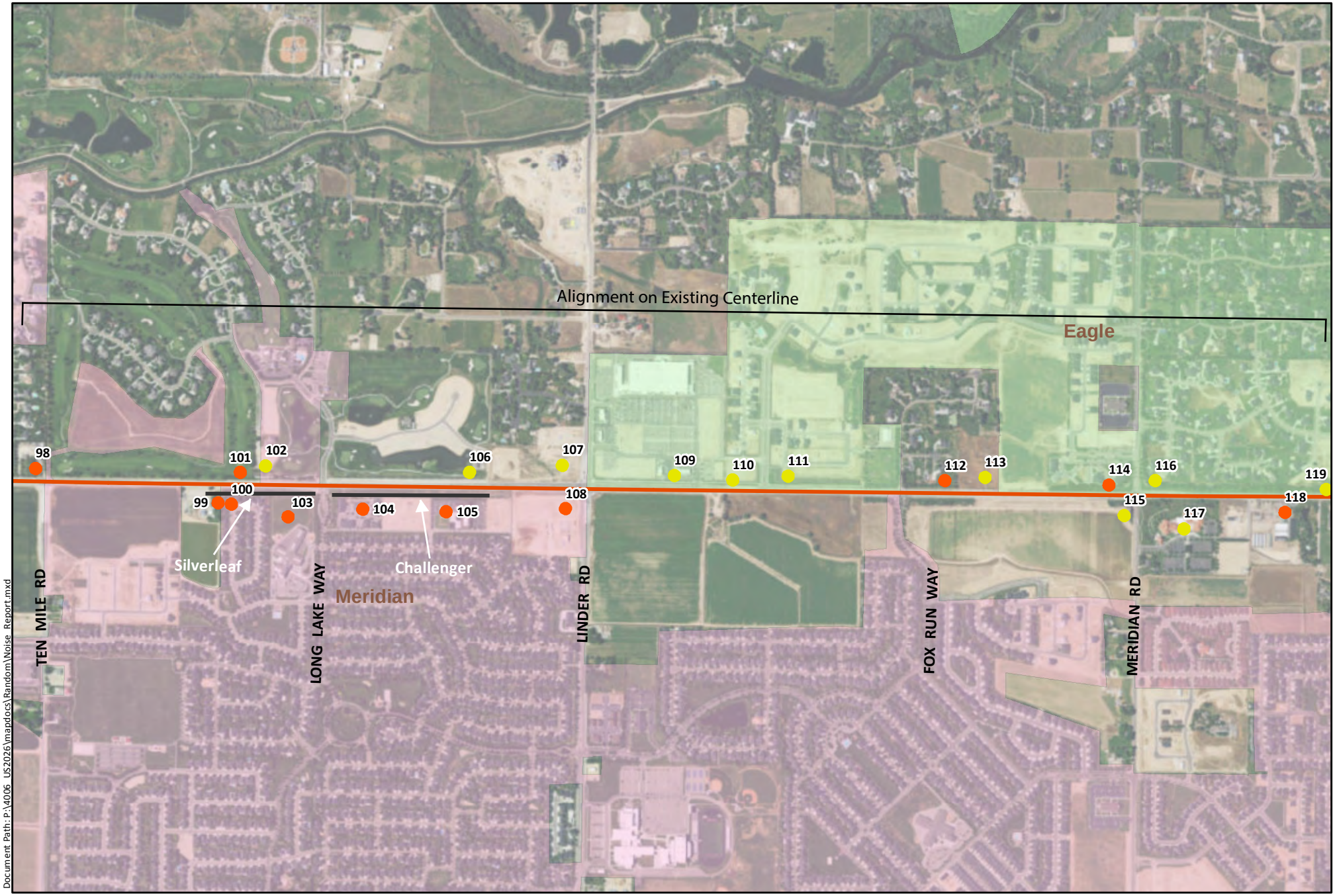
- Noise Barrier Considered
- Proposed US 20/26 Centerline
- Railroad

- County

- Boise
- Caldwell
- Eagle
- Kuna
- Meridian
- Nampa

FIGURE 6
Receiver Locations

US 20/26 Corridor
Preservation Study



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Receiver Number
- No Impact
- Impact
- Relocation

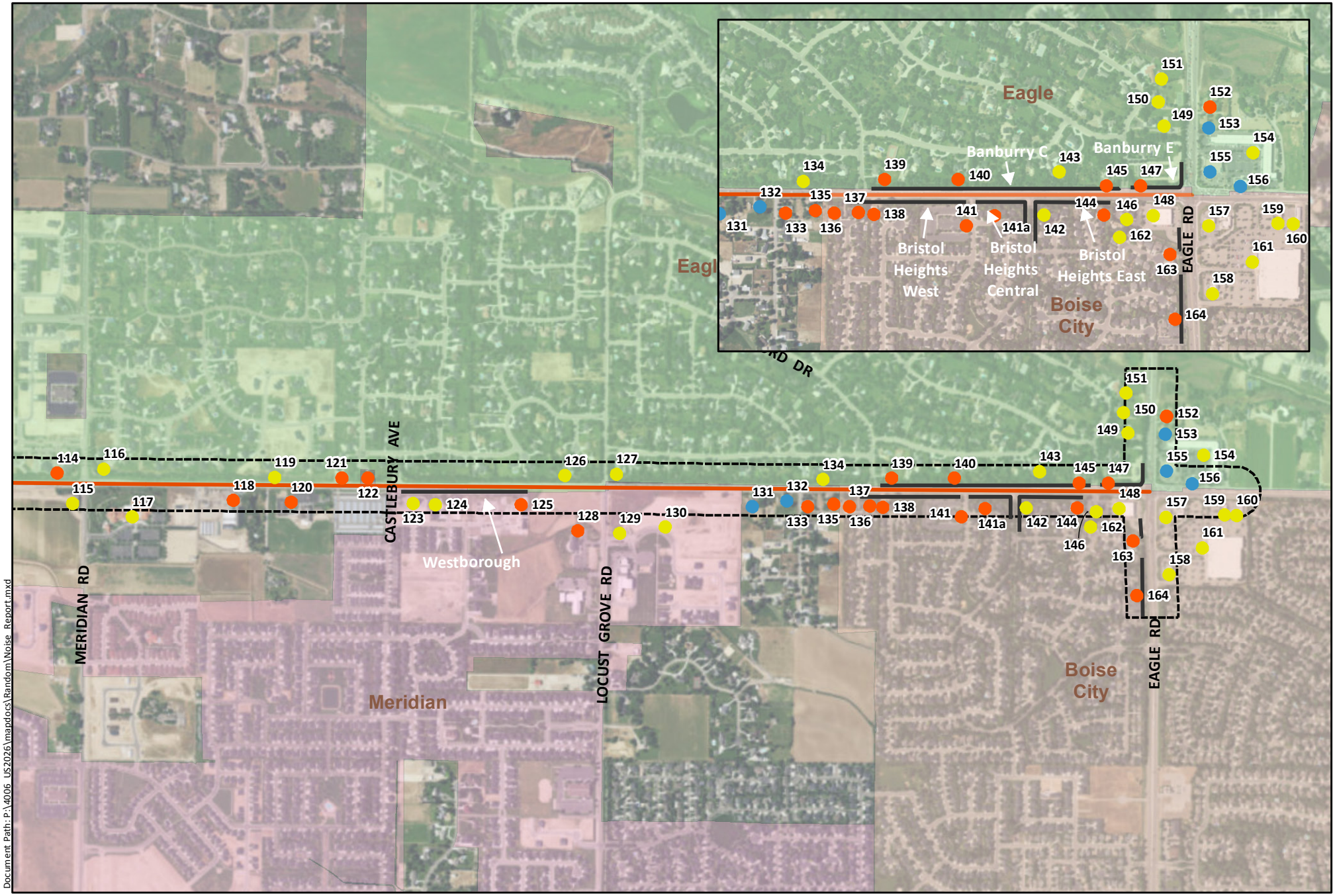
- Noise Barrier Considered
- Proposed US 20/26 Centerline
- Railroad

- County

- Boise
- Caldwell
- Eagle
- Kuna
- Meridian
- Nampa

FIGURE 7
Receiver Locations

US 20/26 Corridor
Preservation Study



Parametrix
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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Receiver Number
- No Impact
- Impact
- Relocation

- Noise Barrier Considered
- Proposed US 20/26 Centerline
- Railroad
- Study Area
- County
- Boise
- Caldwell
- Eagle
- Kuna
- Meridian
- Nampa

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FIGURE 8
Receiver Locations

US 20/26 Corridor
Preservation Study

2.0 NOISE CRITERIA

Sound is created when an object vibrates and radiates part of its energy as acoustic pressure or waves through a medium such as air, water, or a solid object. Sound levels are expressed in units called decibels (dB). Since the human ear does not respond equally to all frequencies (or pitches), measured sound levels (in dB at standard frequency bands) are often adjusted or weighted according to the frequency response of human hearing and the human perception of loudness. The weighted sound level is designated as the A-weighted sound level in decibels, or dBA, and is measured with a calibrated sound level meter. Typical sound levels experienced by people range from about 40 dBA, the daytime level in a typical quiet living room, to 85 dBA, the approximate level produced by a food blender at three feet.

Noise is defined as unwanted sound. The ability of an average individual to perceive changes in noise levels is well documented. Generally, changes in noise levels less than three dBA will be barely perceived by most listeners, whereas a 10 dBA change is normally perceived as a doubling of noise levels. The general principle on which most noise acceptability criteria are based, is that a perceptible change in noise is likely to cause annoyance wherever it intrudes upon existing noise from all other sources (i.e., annoyance depends upon the noise that exists before the introduction of a new sound).

Several descriptors are used to express noise levels, which correlate with human perception. FHWA uses the energy equivalent level (L_{eq}) noise exposure descriptor for assessing the impacts of roadway projects. L_{eq} is calculated by averaging the dBA noise levels measured over a specified period of time. FHWA and ITD assess roadway noise levels in terms of a one-hour L_{eq}, which is the average of instantaneous dBA sound levels measured over a one–hour period. Use of L_{eq} is appropriate for traffic noise analyses because these levels are sensitive to both the frequency of occurrence and the duration of transportation noise events.

To properly assess noise impacts of roadway projects, noise-sensitive land uses and activities in the vicinity of projects must be first identified and analyzed. Anticipated changes in noise levels for these sensitive areas are then identified during peak hour (anticipated future traffic volumes based on design between 5 and 7 PM) conditions when the noise levels are expected to be the highest. The following table displays the FHWA Noise Abatement Criteria (NAC) for varying land activity categories as presented in FHWA's Highway Traffic Noise Analysis and Abatement Policy and Guideline (23 CFR 772).

TABLE 2.1: FHWA NOISE ABATEMENT CRITERIA

FHWA Noise Abatement Criteria (NAC)		
Activity Category	**$L_{eq\ (h)}$ (dBA)**	**Description of Activity Category**
A	57 (Exterior)	Land on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B[1]	67 (Exterior)	Residential
C[1]	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic area, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship[2], public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E[1]	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A-D or F.
F	–	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	-	Undeveloped lands that are not permitted.

Source: 23 CFR 772
1: Includes undeveloped lands permitted for this activity category.
2: All churches were included for interior noise.

The ITD Noise Policy defines traffic noise impacts as occurring under either of the following conditions:

- When the comparison of predicted noise levels to the NAC levels noted in the above table for various land use activity categories are approached or exceeded. This is referred to as an "absolute" impact. Approach is defined as at or within one dBA of the NAC, or, at or greater than 66 dBA L_{eq} for Activity Category B.

- When the predicted design year traffic noise level substantially exceeds the existing noise level. "Substantial" is defined as 15 dBA or greater.

If an impact (exceedance of NAC) is predicted, FHWA procedures and the ITD Noise Policy indicate that mitigation should be considered. Noise abatement measures must be both reasonable and feasible. According to the ITD Noise Policy, "feasibility

deals primarily with engineering considerations (e.g., can a barrier be built given the topography of the location; can a substantial noise reduction be achieved given certain access, drainage, snow removal, safety, or maintenance requirements; are other noise sources present in the areas, etc.)." Reasonableness is a more subjective criterion, which includes but is not limited to, factors such as amount of noise reduction provided; cost of abatement; views from affected residences; future noise levels; timing and consideration of development along the highway; and location of isolated receivers.

3.0 METHODOLOGY AND ASSUMPTIONS

3.1 TRAFFIC NOISE MODEL

Projected future noise levels for the "worst case" scenario of the 2040 Design Year Alternative were estimated using the FHWA approved noise model, Traffic Noise Model (TNM) 2.5. TNM estimates the acoustic intensity at a receiver location resulting from traffic (the source) traveling on a series of straight-line roadway segments. The roadway segment geometry considered is three-dimensional. The program considers characteristics of the path of noise transmitted between the source and the noise receiver by including the effects of intervening barriers, topography, trees, and atmospheric absorption.

The modeling performed for this project included:

- Eastbound and westbound mainline lanes of US 20/26
- Crossroads of the northbound and southbound lanes of Eagle Road, Locust Grove Road, Castlebury Road, Meridian Road, Fox Run, Linder Road, Long Lake, Ten Mile Road, Tree Farm Road, Black Cat Road, Star Road, Can-Ada Road, 11th Avenue North, Franklin Road, Northside Boulevard, Midland Boulevard, Middleton Road, Ward Road, KCID Road, Smeed Road and Aviation Way

TNM results were checked against field noise level measurements and traffic counts. Acceptable variation between model results and measured noise levels is plus or minus three dBA. The modeled decibel levels were within three dBA of measured noise levels for the existing condition for all of measured and modeled receivers, thereby validating the TNM results for existing noise levels and predictions of future levels. The validated model was used to develop the existing and design year models.

3.2 TRAFFIC NOISE MODEL INPUT DATA

Traffic data was provided by ITD and COMPASS. TNM was run using the following input data and assumptions:

- The TNM default of “average” pavement type was used.
- Design year 2040 pm peak hour traffic volumes were used, as projected by ITD and COMPASS (see Appendix A).
- Assumed vehicle mix for US 20/26 to be 87% cars, 7% medium trucks, 4% heavy trucks, 1% buses, and 1% motorcycles.
- Assumed vehicle mix for all cross streets to be 92% cars, 5% medium trucks, and 3% heavy trucks.
- Speed limits used for US 20/26 for Existing Condition: 50 mph between Stafford Road and Eagle Road; 55 mph between Stafford Road and KCID Road; and 35 mph between Smeed Road and I-84. Speed limit for US 20/26 for Design Year Alternative: 55 mph from I-84 to Eagle Road.

- Speed limits used for cross streets for the existing and design year alternatives are presented in Table 3.1.

TABLE 3.1: CROSS STREET SPEED LIMITS

Cross Street	MPH North of US 20/26	MPH South of US 20/26
Aviation Way	30	30
Smeed Road	35	35
KCID Road	35	45
Ward Road	35	25
Middleton Road	50	50
Midland Boulevard	50	45
Northside Boulevard	35	35
Franklin Road	35	35
11th Avenue North	35	35
Can- Ada Road	35	50
Star Road	50	50
Black Cat Road	35	50
Tree Farm Road	25	Not Applicable (N/A)*
Ten Mile Road	N/A*	40
Long Lake	25	25
Linder Road	40	40
Fox Run	25	25
Meridian Road	45	45
Castlebury Road	25	25
Locust Grove	30	40
Eagle Road	55	55
NA= Roadway did not continue north or south of 20/26.		

Roadway Geometry and Sensitive Receiver Locations

Roadway geometry and sensitive receiver locations were established from roadway plan drawings, aerial photographs, and cross sections provided by Parametrix. The locations of sensitive receivers were identified from field reconnaissance, aerial photography, and existing mapping. Topographic features and elevations were also noted from electronic files and field observation. 165 receivers were added to the

model for analysis. Receiver 50 was intentionally omitted due to a numbering error and receivers 25a and 141a were added.

Features for Inclusion in TNM

Existing earth berms were identified between specified roadway segments and specified receivers. It was assumed that berms/walls would be replaced in the Design Year Alternative. Although jersey barriers may be proposed along the structures of some crossroads, such barriers were not included in the TNM in order to evaluate the "worst case" scenario for the Design Year Alternative. Existing concrete privacy walls in the project area were evaluated, but do not block the line-of-sight from a specified receiver to the proposed roadway, and therefore, were not included in TNM. Vinyl and wood fencing was identified in some locations, between a specified receiver and the proposed roadway; however, these fence types were not included in the TNM because they do not provide noise abatement, due to gaps in their design. Building rows were not included in the TNM because there are no rows dense enough to provide abatement.

Terrain features were not included in the TNM, because each evaluated location indicated only a gradual change in topography, or a predominately flat area without notable topographic relief. In addition, the absence of terrain lines allows a "worst case" scenario for traffic noise impacts.

3.3 INTERIOR NOISE PREDICTIONS

FHWA Analysis and Abatement Guidelines provide a methodology for determining a noise impact to an interior area. Interior noise levels are predicted by subtracting the modeled exterior noise levels by building noise reduction factors based on the structures building type and window condition (see Table 3.2)

TABLE 3.2: BUILDING NOISE REDUCTION FACTORS

BUILDING TYPE	WINDOW CONDITION	NOISE REDUCTION DUE TO EXTERIOR OF THE STRUCTURE
All	Open	10dB
Light Frame	Ordinary Sash (closed)	20dB
	Storm Windows	25dB
Masonry	Single Glazed	25dB
	Double Glazed	35dB
*The windows shall be considered open unless there is firm knowledge that the windows are in fact kept closed almost every day of the year.		

Source: FHWA Analysis and Abatement Guidelines (Dec 2011).

For this study noise levels were predicted for interior and exterior activity for receivers representing churches and daycares. At these locations, traffic noise levels were predicted for interior noise levels using FHWA's defined noise reduction values (Table 3.3) for different types of building construction in order to adjust the predicted exterior traffic noise levels. The predicted reduction of interior noise levels for each of the churches is shown in Table 5.2.

TABLE 3.3: INTERIOR NOISE RECEIVERS

RECEIVER NO.	TYPE OF BUILDING	NOISE REDUCTION DUE TO EXTERIOR OF THE STRUCTURE
52	Light Frame	20 dB
104	Light Frame	20 dB
117	Masonry	25 dB
120	Light Frame	20 dB
128	Masonry	25 dB
141	Masonry	25 dB

3.4 NOISE MEASUREMENTS

Existing noise conditions in the project area were documented through a series of field measurements between November 1, 2014 and March 5, 2015. One additional field measure was taken on October 10, 2016 for Eagle Road. Measurements were taken at ten typical, first-row sensitive receiver locations along the corridor.

Three 10-minute readings were obtained at each receiver location, and a site sketch and photographs were completed and are available in the project record. Meteorological conditions such as temperature, humidity, and wind speed were recorded before and after each measurement. Any non-traffic noise sources were noted during each measurement, but no other sound sources (e.g., barking dogs, unusual events, etc.) were found to contaminate the data. Measurements were taken until noise levels during a particular sample timeframe stabilized, and a minimum of three measurements were obtained at each location. Repeat measurements were obtained until the measurements were consistent, within one dBA.

The field measurements and TNM results were within the accepted criteria of plus or minus three dBA of each other. Therefore, the model is validated since the difference between the monitoring and the modeling was within an acceptable range for all of the receivers. A Larsen-Davis Integrating Sound Level Meter, model 812, was used to conduct the measurements. The system was calibrated before and after each measurement session, and the procedures and protocols followed were in accordance

with section four of the FHWA report, Measurement of Highway-Related Noise (FHWA 1996). The measurement results are presented in Table 4.1.

4.0 AFFECTED ENVIRONMENT

Land uses, development types, and development densities vary greatly along the US 20/26 corridor. Along the corridor length, all sensitive receivers are classified within FHWA's Activity Categories B, C D, E and G. Land uses between I-84 and Middleton Road are a mix of agriculture, commercial, and residential uses, including newer subdivisions and some older, single-family dwellings. For this area of the corridor, measurement locations include R 12 and R 20, and receivers 1-27. Between Middleton Road and Black Cat Road, the corridor is characterized by farmland, low-density and older single-family detached residences, and farm outbuildings. For this section of the corridor, measurement locations include R 35, and R 53, and receivers 28-90. Receiver 50 was omitted. The area between Black Cat Road and Eagle Road is experiencing rapid development both north and south of US 20/26. Land uses within this area primarily include single-family residential and commercial, including big box retail and small business parks. For this area, measurement locations include R 99, R 111, R 120, R 147, and R 153 and receivers 91-164.

The US 20/26 corridor passes through the jurisdictions or areas of impact of Ada and Canyon Counties, and the cities of Boise, Meridian, Eagle, Nampa, and Caldwell. None of the local jurisdictions have established ordinances preventing residential development adjacent to arterials. However, some have established buffer and setback requirements along state highways.

The City of Eagle requires a ROW development agreement identifying necessary setbacks from major and principal arterials. In addition, the city requires that "a minimum of a seventy-five foot (75') wide buffer area (not including right-of-way) shall be provided with trees and a minimum ten foot (10') high, maximum twelve foot (12') high, berm, decorative block wall, cultured stone, decorative rock, or similarly designed concrete wall, or combination thereof shall be provided within the buffer area. The maximum slope for any berm shall be three feet (3') horizontal distance to one foot (1') vertical distance. If a decorative block wall, cultured stone, decorative rock, or similarly designed concrete wall is to be provided, in combination with the berm, a four foot (4') wide flat area shall be provided for the placement of the decorative wall. Chain link, cedar, and similar high maintenance and/or unsightly fencing shall not be permitted" (City of Eagle, 2007).

The City of Meridian's Code restricts direct access to a state highway for any new development and requires construction of a 10-foot wide multi-use pathway within a public use easement. In addition, noise abatement is required for developments that contain sensitive noise receivers along the corridor. Noise abatement includes a continuous berm or berm/wall combination parallel to the highway, at a minimum of 10 feet higher than the elevation of the centerline of the highway (City of Meridian Code 11-3H-4.D). Each development type (e.g., residential, commercial, etc.) includes a required landscape buffer to streets, including US 20/26.

The City of Caldwell requires a 30-foot-wide street landscape buffer containing a detached sidewalk for all parcels that have frontage along US 20/26 (City of Caldwell, 2010).

4.1 EXISTING NOISE LEVELS

Existing noise level measurements were taken at ten representative sensitive receiver locations. The average recorded noise levels for these receivers are provided in Table 4.1.

TABLE 4.1: NOISE LEVEL READINGS

Monitoring Location (R #)	Site Description	Measured Noise Levels (dBA)	TNM Noise Levels (dBA)	Difference (dBA)
R 12	Lakey's	62.3		
		64.8		
		62.3		
	Average	63.1	64.3	1.2
R 20	Single-Family Residence	56.9		
		55.9		
		55.5		
	Average	56.1	54.0	2.1
R 35	Single-Family Residence	64.5		
		63.4		
		64.5		
	Average	64.1	61.6	2.5
R 53	Single-Family Residence	69.0		
		69.7		
		67.3		
	Average	68.6	65.7	2.9
R 69	Syngenta Seeds	69.8		
		69.0		
		70.2		
	Average	69.6	66.6	3.0
R 99	Single-Family Residence	67.0		
		68.5		
		68.1		
	Average	67.8	64.8	3.0
R 111	Foxtail Estates	65.0		
		64.9		
		65.5		
	Average	65.1	64.1	1.0
R 120	Lutheran Church	68.9		
		69.0		
		69.1		
	Average	69.0	66.0	3.0
R 147	Banbury Single-Family Residence	66.2		
		65.1		
		66.8		
	Average	66.0	65.4	0.6
R 153	Single-Family Residence	69.0		
		70.5		
		68.9		
	Average	69.0	67.3	2.0

Shading denotes measurements that exceed the NAC.

5.0 ENVIRONMENTAL CONSEQUENCES

Traffic noise impacts on sensitive receivers can occur during construction, due to equipment noise, and during operation following construction, due to a change in alignment or an increase in traffic capacity and volumes. Both types of impacts are discussed below.

5.1 IMPACTS DURING CONSTRUCTION

Construction of the new roadway may cause localized, short-duration noise impacts. The most prevalent construction noise source is generated by equipment powered by internal combustion engines (usually diesel). Construction noise differs from traffic noise in several ways:

- Construction noise can be minimized during more sensitive hours, whereas traffic noise during operation can occur at any hour.
- Construction activities are generally of a short-term nature, and depending on the nature of construction operations, could last from seconds (e.g., a construction truck passing a receiver) to months. In contrast, traffic noise during operation is typically a permanent impact.
- Construction noise is intermittent and depends on the type of operation, location and function of the equipment, and the equipment usage cycle, whereas traffic noise during operation is typically present in a more continuous fashion after construction activities are completed.

Construction equipment noise levels are typically measured at 50 ft. from the source. These levels decrease six dB per doubling of distance because of geometric divergence alone, provided there is a clear line of sight to the equipment. For example, a bulldozer creating 80 dBA of noise at 50 ft. will usually have observed values of 74 dBA at 100 ft. and 68 dBA at 200 ft. Some typical construction equipment noise levels are listed in Table 5.1.

TABLE 5.1: TYPICAL CONSTRUCTION EQUIPMENT NOISE

Types of Activities	Types of Equipment	Range of Noise Levels at 50 Ft. (dBA)
Materials Handling	Concrete Mixer	75-87
	Concrete Pump	81-83
	Crane (Moveable)	76-87
	Crane (Derrick)	86-88
Stationary Equipment	Pump	69-71
	Generator	71-82
	Compressor	74-87
Impact Equipment	Pneumatic Wrench	83-88
	Rock Drill	81-98
Land Clearing	Bulldozer	77-96
	Dump Truck	82-94
Grading	Scraper	80-93
	Bulldozer	77-96
Paving	Paver	86-88
	Dump Truck	82-94

Source: U.S. Environmental Protection Agency, 1971.

Noise from some construction equipment likely to be used on this project (e.g., tractors, trucks, graders, pile drivers, etc.) is expected to range up to 95 dBA when measured from a distance of 50 feet. Short-term (15-21 month) construction noise impacts would be addressed through standard noise control methods including community relations, construction considerations, and source control and controls as follows:

- Community Relations: Early communication with the general public can help to reduce noise complaints. The public would be informed of any potential constructions noise impacts and the measures that would be employed to reduce these impacts. Also, a responsive complaint mechanism would be established and publicized for the duration of the project.

- Construction Considerations: Early coordination and communication with project designers can greatly aid in locating and sequencing construction operations to minimize potential construction noise impacts at sensitive receivers. Alternative construction methods would also be employed to lessen potential noise impacts (e.g., cast-in-place piles rather than driven piles, rubber-tired equipment rather than steel-tracked equipment, etc.). Further, idling equipment would be turned off when not in use. Equipment operators would drive forward instead of backward, whenever possible; lift

instead of dragging materials; and avoid mechanical scraping activities that can be accomplished with quieter manual methods.

- Source Controls: New construction equipment is generally quieter than older equipment and specialized, very quiet types of new equipment are available. However, specification of the exclusive use of new, quiet construction equipment on a project can be very costly and is usually justifiable only in cases of extremely severe noise impacts. Control of noise from construction equipment would usually be limited to a requirement for mufflers and continuous good maintenance on all equipment.

- Site Control: Measures to abate highway construction noise can modify the time, place, or method of operation for a particular noise source. The measure most often used is the limitation of work hours on a construction site. Work that does not need to be completed at night should be confined to daytime hours. When work must be done at night, the contractor should complete the noisiest work as early in the time period as possible.

To minimize noise impacts during construction activities, low-cost, easy-to-implement measures would be incorporated into the project plans and specifications, such as:

- All exhaust systems on equipment would be in good working order.
- Properly designed engine enclosures and intake silencers would be used where appropriate.
- Equipment would be maintained on a regular basis.
- New equipment would be subject to new product noise emission standards.
- Stationary equipment would be located as far away from sensitive receivers as possible.
- Construction equipment would be turned off during prolonged periods of non-use.
- A public information program would be developed to address responsive compliance for construction noise.
- Construction noise would be mostly limited to daylight hours unless otherwise approved. Night time work could be required, but it would be minimal in extent and would require prior approval from ITD. Night time work would likely consist of preparatory and finishing types of work such as forming, placement/curing of materials (e.g., concrete), and paving. The same typical equipment for normal construction would be used for night time work, such as haulers, back/track hoes, cranes, and service trucks.

5.2 Impacts During Operation

Table 5.2 presents the modeling results for traffic noise impacts predicted for the existing and Design Year Alternatives. TNM electronic files are included in Appendix C.

As noted in Table 5.2, the modeling revealed that noise levels are predicted to increase from 0 to 14.9 dBA, and that the project would impact an estimated 74

receivers. However, many of the noise impacts would occur at locations where relocations are planned due to other project impacts. Noise levels for the Design year Alternative assumed that existing berms/walls would be replaced; as shown in Table 5.2. Of the 74 impacted receivers, 48 of the locations would also be impacted if the project were not constructed.

As noted in the Noise Criteria section of this memorandum (Section 2.0), the ITD Noise Policy states that noise impacts on sensitive receivers (e.g., residences, schools, public open spaces, etc.) require consideration of noise mitigation when the predicted noise level exceeds the existing noise level by 15 dBA or more, or when the predicted noise level approaching their respective NAC. Table 5.2 describes if mitigation was considered for all receivers. If a receiver was impacted, but mitigation was not feasible, a description of why is included. For instance, if the receiver requires direct access to US 20/26, a barrier is not considered feasible and mitigation was not considered, and noted with "No – Access."

TABLE 5.2: TRAFFIC NOISE MODEL RESULTS

Receiver No.	Location Description[A]	NAC Activity Category	No. of Units	Distance to Centerline (ft.) [Exist/Build][B*]	Existing (2015) Noise Level (dBA)[C]	Design Year (2040) Noise Level (dBA)[C]	Mitigation Considered? (Reason)
1	Idaho Department of Health and Welfare	C	1	395/395	54.3	60.9	No
2	Steve Regan Company	E	1	157/157	63.0	71.0	No
3	Undeveloped	G	1	314/314	55.2	63.9	No
4	Single Family Residence (SFR)	B	1	154/154	62.5	70.3	No- Access
5	Imaging Center of Idaho	C	1	223/223	62.4	68.7	No- Access
6	Caldwell Dialysis Center	C	1	217/217	59.2	67.5	No- Access
7	Ambassador RV Park	C	1	380/380	53.5	62.5	No
8	Voyager Trailers	E	3	130/120	66.2	Relocation	No
9	The Ranch, Lakey's, and Quick Loan	E	7	102/152	62.5	Relocation	No
10	Lakey's #2 Mobile Home Park (SFR)	B	16	233/283	56.7	68.6	Yes[D]
11	SFR	B	1	137/87	64.6	Relocation	No
12	Super Taquera Mobile Home Park (SFR)	B	4	106/156	64.3	69.0	No- Access
13	Artic Air	E	1	132/182	62.0	68.8	No
14	Delaware Park (SFR)	B	21	591/541	55.4	61.0	No
15	Virginia Park/ Central Self Storage	E	1	197/277	53.0	66.0	No
16	Delaware Park (SFR)	B	13	340/290	54.8	67.5	Yes[D]
17	SFR	B	3	400/450	53.7	58.9	No
18	SFR	B	1	335/385	55.8	59.0	No
19	SFR	B	6	392/442	54.3	58.0	No
20	Delaware Park (SFR)	B	15	356/306	54.0	66.3	Yes[D]
21	SFR	B	1	250/200	58.3	70.0	No- Access
22	Woodgate (SFR)	B	3	110/160	60.2	59.1	No
23	SFR	B	3	146/196	60.6	59.0	No

Receiver No.	Location Description[A]	NAC Activity Category	No. of Units	Distance to Centerline (ft.) [Exist/Build][B*]	Existing (2015) Noise Level (dBA)[C]	Design Year (2040) Noise Level (dBA)[C]	Mitigation Considered? (Reason)
24	SFR	B	1	132/182	61.5	60.0	No
25	SFR	B	14	362/312	60.3	68.5	Yes[D]
25a	SFR	B	1	90/40	66.6	Relocation	No
26	SFR	B	1	150/200	58.8	70.8	No- Access
27	SFR	B	1	535/485	58.7	66.8	No- Access
28	SFR	B	1	213/263	60.2	65.6	No
29	SFR	B	1	260/210	60.0	Relocation	No
30	SFR	B	1	147/197	60.5	65.0	No
31	SFR	B	1	102/152	61.6	70.2	No- Access
32	SFR	B	1	380/330	54.7	69.1	No- Access
33	SFR	B	1	116/166	61.7	70.5	No- Access
34	SFR	B	1	200/150	61.0	Relocation	No
35	SFR	B	1	199/149	61.6	Relocation	No
36	New Metal West	E	1	237/287	62.2	70.6	No
37	SFR	B	1	371/321	59.2	66.3	No- Access
38	SFR	B	1	214/264	59.1	64.3	No
39	SFR	B	1	131/78	65.5	Relocation	No
40	SFR	B	1	235/181	62.3	Relocation	No
41	SFR	B	1	111/166	62.0	69.7	No- Access
42	SFR	B	1	130/187	54.5	69.4	No- Access
43	SFR	B	1	383/326	54.8	62.4	No
44	SFR	B	1	135/194	63.3	71.8	No- Access
45	SFR	B	1	145/205	62.8	70.8	No- Access
46	Nampa Tractor Salvage	E	1	139/76	60.2	Relocation	No
47	SFR	B	1	171/234	66.1	69.7	No- Access
48	SFR	B	1	169/106	64.9	Relocation	No
49	SFR	B	1	140/82	65.5	Relocation	No
50	Receiver 50 was omitted.						

Receiver No.	Location Description[A]	NAC Activity Category	No. of Units	Distance to Centerline (ft.) [Exist/Build][B*]	Existing (2015) Noise Level (dBA)[C]	Design Year (2040) Noise Level (dBA)[C]	Mitigation Considered? (Reason)
51	SFR	B	1	100/150	61.3	71.1	No- Access
52	Franklin Community Church (Light Frame)	D	1	299/349	55.8 (35.8)*	63.8 (43.8)*	No
53	SFR	B	1	268/318	65.7	68.4	No- Access
54	SFR	B	1	251/301	63.2	70.3	No- Access
55	SFR	B	1	119/169	62.2	70.7	No- Access
56	SFR	B	1	250/300	57.5	66.0	No- Access
57	SFR	B	1	131/181	60.7	71.6	No- Access
58	Franklin Junction	E	1	142/92	65.3	Relocation	No
59	SFR	B	1	166/216	62.8	70.3	No- Access
60	The Berry Ranch	B	1	145/195	65.7	70.6	No- Access
61	SFR	B	1	164/114	62.9	Relocation	No
62	SFR	B	1	96/146	67.2	74.0	No- Access
63	SFR	B	1	165/215	64.3	71.4	No- Access
64	SFR	B	1	103/103	63.0	Relocation	No
65	SFR	B	1	185/245	63.1	70.0	No- Access
66	SFR	B	1	338/278	57.2	67.5	No- Access
67	SFR	B	1	258/318	61.6	69.3	No- Access
68	SFR	B	1	164/224	63.6	68.7	No- Access
69	Syngenta Seeds	E	1	140/80	66.6	Relocation	No
70	SFR	B	1	213/273	64.1	69.6	No- Access
71	SFR	B	1	181/241	64.4	69.4	No- Access
72	SFR	B	1	158/218	65.5	68.1	No- Access
73	SFR	B	1	122/62	61.5	Relocation	No
74	SFR	B	1	186/246	60.8	66.4	No- Access
75	SFR	B	1	136/76	64.5	Relocation	No
76	SFR	B	1	101/41	60.0	Relocation	No
77	SFR	B	1	114/174	66.8	67.3	No- Access
78	SFR	B	1	167/227	66.1	68.3	No- Access

Receiver No.	Location Description[A]	NAC Activity Category	No. of Units	Distance to Centerline (ft.) [Exist/Build][B*]	Existing (2015) Noise Level (dBA)[C]	Design Year (2040) Noise Level (dBA)[C]	Mitigation Considered? (Reason)
79	SFR	B	1	643/583	59.9	66.6	No- Access
80	SFR	B	1	74/74	67.5	Relocation	No
81	SFR	B	1	100/100	63.8	Relocation	No
82	SFR	B	1	125/125	64.8	Relocation	No
83	SFR	B	1	177/177	62.8	72.3	No- Access
84	Serenity Estates - (SFR)	B	2	238/238	60.9	66.4	No- Access
85	SFR	B	1	173/173	70.1	Relocation	No
86	SFR	B	1	150/150	65.7	Relocation	No
87	SFR	B	1	292/292	65.3	69.7	No- Access
88	SFR	B	1	105/105	68.3	Relocation	No
89	SFR	B	1	394/394	56.9	63.5	No
90	SFR	B	1	205/205	61.4	71.4	No- Access
91	SFR	B	5	461/461	59.4	61.5	No
92	SFR	B	1	105/105	64.5	Relocation	No
93	SFR	B	7	91/91	66.5	Relocation	No
94	Barn- Nursery	E	1	130/130	65.6	Relocation	No
95	Spurwing Greens (SFR)	B	12	153/153	55.1	58.2	No
96	Spurwing Greens (SFR)	B	4	176/176	59.4	59.1	No
97	Spurwing Greens (SFR)	B	9	194/194	52.9	60.6	No
98	SFR	B	1	145/145	61.9	70.7	No- Access
99	SFR	B	2	104/104	64.8	71.0	Yes[D]
100	Silverleaf (SFR)	B	10	122/122	64.1	70.1	Yes[D]
101	Spurwing Golf Course	C	1	216/216	65.3	67.4	Yes
102	SFR	B	1	231/231	60.9	64.8	No
103	Meridian School	C	2	288/288	64.5	66.2	Yes[D]
104	Commercial – Daycare (Light Frame), Gym, Vet Clinic	C/D	4	210/210	54.7 (34.7)*	69.5 (49.5)*	Yes
105	Challenger School	C	8	198/198	63.7	68.6	Yes

Receiver No.	Location Description[A]	NAC Activity Category	No. of Units	Distance to Centerline (ft.) [Exist/Build][B*]	Existing (2015) Noise Level (dBA)[C]	Design Year (2040) Noise Level (dBA)[C]	Mitigation Considered? (Reason)
106	Spurwing Golf Course	C	9	185/185	61.8	64.2	No
107	Chinden and Linder Crossing	E	1	231/231	63.2	69.2	No
108	Knighthill Retail	E	1	191/191	65.8	72.2	No- Access
109	Fred Myer Fuel, McDonald's', Epic Car Wash	E	4	184/184	62.4	71.6	No
110	Undeveloped	G	1	104/104	64.1	73.2	No
111	Foxtail Estates (SFR)	B	10	152/152	61.7	65.3	No
112	Foxtail (SFR)	B	7	139/139	60.5	66.2	No-Access
113	Undeveloped	G	1	174/174	63.6	68.8	No
114	Oasis Medical Center	C	5	177/177	58.5	67.2	No-Access
115	Undeveloped	G	1	135/135	63.1	64.0	No
116	Castlebury West - (SFR)	B	10	211/211	52.5	62.2	No
117	Holy Apostles Catholic Church (Masonry)	D	5	302/302	63.2 (38.2)*	67.5 (42.5)*	No
118	Zamzows	E	5	316/316	66.7	73.7	No-Access
119	Castlebury West - (SFR)	B	6	189/189	62.5	64.7	No
120	Church (Light Frame)	D	2	286/286	66.0 (46.0)*	72.4 (52.4)*	No-Access
121	SFR	B	1	126/126	67.0	74.8	No-Access
122	Castlebury - (SFR)	B	2	194/194	63.8	66.5	No- Access
123	Coffee House, Essential Hot Yoga	E	2	236/236	62.1	62.4	No
124	Hightower – Multi-Family Residence	B	7	215/215	63.3	63.9	No
125	Westborough - Multi-Family Residence	B	28	208/208	66.3	66.8	Yes
126	Castlebury (SFR)	B	4	181/181	62.1	65.7	No
127	Banbury (SFR)	B	7	144/144	58.9	63.5	No

Receiver No.	Location Description[A]	NAC Activity Category	No. of Units	Distance to Centerline (ft.) [Exist/Build][B*]	Existing (2015) Noise Level (dBA)[C]	Design Year (2040) Noise Level (dBA)[C]	Mitigation Considered? (Reason)
128	Valley of Life Church (Masonry)	D	1	477/477	54.6 (29.6)*	62.6 (37.6)*	No
129	Ambrose School	C	1	477/477	54.5	60.7	No
130	SFR	B	1	196/196	56.9	58.1	No
131	SFR	B	1	138/138	65.4	Relocation	No
132	SFR	B	4	121/121	69.0	Relocation	No
133	SFR	B	1	159/159	66.5	67.7	No-Access
134	Banbury (SFR)	B	6	211/211	57.8	64.6	No
135	SFR	B	1	133/133	62.4	69.9	No-Access
136	Bristol Heights (SFR)	B	6	158/158	65.8	66.8	Yes[D]
137	SFR	B	7	168/168	64.1	69.0	Yes[D]
138	Bristol Heights (SFR)	B	1	121/121	62.9	66.7	Yes[D]
139	Banbury (SFR)	B	6	191/191	62.2	66.1	Yes[D]
140	Banbury (SFR)	B	4	231/231	60.6	66.1	Yes[D]
141	Church of the Latter Day Saints (Masonry)	D	1	230/230	56.7 (31.7)*	62.1 (37.1)*	No
141 a	Bristol Heights (SFR)	B	6	121/121	62.1	67.2	Yes[D]
142	Bristol Heights (SFR)	B	5	251/251	60.8	62.6	Yes[D]
143	Banbury (SFR)	B	7	231/231	60.2	64.5	Yes[D]
144	Bristol Heights (SFR)	B	5	148/148	63.3	67.9	Yes[D]
145	Banbury (SFR)	B	2	156/156	63.2	68.7	Yes[D]
146	Law Offices	E	1	175/175	63.6	69.2	No
147	Banbury (SFR)	B	2	190/190	65.4	67.5	Yes[D]
148	Staples	E	2	194/194	64.5	71.5	No
149	Banbury (SFR)	B	1	210/210*	61.2	64.6	No
150	Banbury (SFR)	B	3	255/255*	61.6	65.4	No
151	Banbury (SFR)	B	1	265/265*	62.5	63.1	No
152	SFR	B	2	155/155*	66.7	69.2	No-Access

Receiver No.	Location Description[A]	NAC Activity Category	No. of Units	Distance to Centerline (ft.) [Exist/Build][B*]	Existing (2015) Noise Level (dBA)[C]	Design Year (2040) Noise Level (dBA)[C]	Mitigation Considered? (Reason)
153	SFR	B	1	150/150*	67.3	Relocation	No
154	Eagle Marketplace (restaurants, spa, gym, insurance company, furniture store)	E	20	390/390	59.5	62.8	No
155	Walgreens	E	1	220/220	65.6	Relocation	No
156	Key Bank	E	1	105/105	67.6	Relocation	No
157	Sinclair/Jack in the Box	E	2	195/195	67.6	70.6	No
158	Zions Bank	E	1	175/165*	64.8	66.4	No
159	A&W/Kentucky Fried Chicken	E	2	200/200	64.4	67.6	No
160	Baird's Dry Cleaning	E	1	185/185	64.2	67.0	No
161	Target	E	1	515/515	58.0	61.4	No
162	Bristol Heights (SFR)	B	5	320/320	59.6	64.9	No
163	Bristol Heights (SFR)	B	3	150/165*	67.6	68.2	Yes
164	Bristol Heights (SFR)	B	5	140/145*	65.4	67.4	Yes

[A] The receiver number corresponds to the receiver location displayed in Figures 1-8; subdivision name noted where applicable
[B] Offset is from the existing and proposed centerline of 20/26. Unless denoted with * which is Eagle Road centerline.
[C] The shading indicates that the noise levels will exceed the ITD/FHWA NAC
[D] Surrounding receivers would experience noise impacts; due to their location, they were included in the barrier design
*(Interior Noise Level)
The number "50" was intentionally omitted.
SFR = Single-Family Residential=a dwelling unit

5.3 No Build

Modeling was performed using the FHWA Traffic Noise Model (TNM 2.5) for the No Build/No Action Alternative using future predicted traffic volumes and speeds (see Study Area and Methodology above). The results of FHWA TNM 2.5 computer model analysis for the No Build/No Action Alternative are noted in Table 5.3. The results indicate that with the No Build/No Action Alternative 45 Category B receivers, one Category D and two Category C receptor approach or exceed the NAC.

TABLE 5.3: TRAFFIC NOISE MODEL RESULTS NO BUILD

Receiver No.	Location Description	NAC Activity Category	No. of Units	No Build (2040) Noise Level (dBA)
1	Idaho Department of Health and Welfare	C	1	59.1
2	Steve Regan Company	E	1	67.9
3	Undeveloped	G	1	60.2
4	Single Family Residence (SFR)	B	1	67.6
5	Imaging Center of Idaho	C	1	67.5
6	Caldwell Dialysis Center	C	1	64.1
7	Ambassador RV Park	C	1	58.4
8	Voyager Trailers	E	3	71.3
9	The Ranch, Lakey's, and Quick Loan	E	7	67.5
10	Lakey's #2 Mobile home Park (SFR)	B	16	61.6
11	SFR	B	1	69.7
12	Super Taquera Mobile Home Park (SFR)	B	4	69.2
13	Artic Air	E	1	66.9
14	Delaware Park (SFR)	B	21	61.1
15	Virginia Park/ Central Self Storage	E	1	58.0
16	Delaware Park (SFR)	B	13	59.8
17	SFR	B	3	58.6
18	SFR	B	1	60.7
19	SFR	B	6	59.2
20	Delaware Park (SFR)	B	15	59.0
21	SFR	B	1	63.3
22	Woodgate (SFR)	B	3	63.4
23	SFR	B	3	62.3
24	SFR	B	1	63.0
25	SFR	B	14	65.2
25a	SFR	B	1	71.5
26	SFR	B	1	63.2
27	SFR	B	1	63.3
28	SFR	B	1	64.0

Receiver No.	Location Description	NAC Activity Category	No. of Units	No Build (2040) Noise Level (dBA)
29	SFR	B	1	64.1
30	SFR	B	1	64.7
31	SFR	B	1	65.8
32	SFR	B	1	58.9
33	SFR	B	1	65.9
34	SFR	B	1	65.2
35	New Metal West	E	1	65.8
36	SFR	B	1	66.3
37	SFR	B	1	63.5
38	SFR	B	1	63.3
39	SFR	B	1	69.7
40	SFR	B	1	66.4
41	SFR	B	1	66.1
42	SFR	B	1	58.6
43	SFR	B	1	59.0
44	SFR	B	1	67.4
45	SFR	B	1	67.0
46	Nampa Tractor Salvage	E	1	63.8
47	SFR	B	1	70.0
48	SFR	B	1	68.6
49	SFR	B	1	69.0
51	SFR	B	1	64.7
52	SFR	B	1	59.2
53	Franklin Community Church	D	1	68.2 (58.2)*
54	SFR	B	1	66.7
55	SFR	B	1	65.7
56	SFR	B	1	60.8
57	SFR	B	1	64.2
58	Franklin Junction	E	1	69.1
59	SFR	B	1	66.5
60	The Berry Ranch	B	1	69.4
61	SFR	B	1	66.6
62	SFR	B	1	70.8
63	SFR	B	1	68.0
64	SFR	B	1	66.6
65	SFR	B	1	66.7

Receiver No.	Location Description	NAC Activity Category	No. of Units	No Build (2040) Noise Level (dBA)
66	SFR	B	1	60.8
67	SFR	B	1	65.2
68	SFR	B	1	67.2
69	Syngenta Seeds	E	1	70.2
70	SFR	B	1	67.7
71	SFR	B	1	67.3
72	SFR	B	1	67.9
73	SFR	B	1	64.2
74	SFR	B	1	63.3
75	SFR	B	1	67.1
76	SFR	B	1	62.9
77	SFR	B	1	69.3
78	SFR	B	1	69.3
79	SFR	B	1	61.6
80	SFR	B	1	71.5
81	SFR	B	1	67.7
82	SFR	B	1	69.0
83	SFR	B	1	66.9
84	Serenity Estates - (SFR)	B	2	63.4
85	SFR	B	1	72.6
86	SFR	B	1	68.2
87	SFR	B	1	67.7
88	SFR	B	1	70.7
89	SFR	B	1	59.3
90	SFR	B	1	63.8
91	SFR	B	5	58.6
92	SFR	B	1	65.7
93	SFR	B	7	67.7
94	Barn- Nursery	E	1	66.7
95	Spurwing Greens (SFR)	B	12	55.8
96	Spurwing Greens (SFR)	B	4	59.3
97	Spurwing Greens (SFR)	B	9	53.8
98	SFR	B	1	63.0
99	SFR	B	2	65.9
100	Silverleaf (SFR)	B	1	65.3

Receiver No.	Location Description	NAC Activity Category	No. of Units	No Build (2040) Noise Level (dBA)
101	Spurwing Golf Course	C	1	66.4
102	SFR	B	1	62.0
103	Meridian School	C	2	65.7
104	Commercial – Daycare, Gym, Vet Clinic	C/D	4	56.3 (46.3)*
105	Challenger School	C	8	64.8
106	Spurwing Golf Course	C	9	63.0
107	Chinden and Linder Crossing	E	1	69.4
108	Knighthill Retail	E	1	68.9
109	Fred Myer Fuel, McDonald's, Epic Car Wash	E	4	62.6
110	Undeveloped	G	1	64.1
111	Foxtail Estates (SFR)	B	10	61.7
112	Foxtail (SFR)	B	7	60.6
113	Undeveloped	G	1	63.6
114	Oasis Medical Center	C	5	64.7
115	Undeveloped	G	1	63.4
116	Castlebury West - (SFR)	B	10	58.7
117	Holy Apostles Catholic Church	D	5	64.2 (44.2)*
118	Zamzows	E	5	67.4
119	Castlebury West - (SFR)	B	6	63.4
120	Church (Light Frame)	D	2	66.8 (44.8)*
121	SFR	B	1	67.9
122	Castlebury - (SFR)	B	2	64.6
123	Coffee House, Essential Hot Yoga	E	2	62.2
124	Hightower - (SFR)	B	7	63.9
125	Westborough - Multi-Family Residence	B	28	67.0
126	Castlebury (SFR)	B	4	62.9
127	Banbury (SFR)	B	7	60.0
128	Valley of Life Church	D	1	57.5 (37.5)*

Receiver No.	Location Description	NAC Activity Category	No. of Units	No Build (2040) Noise Level (dBA)
129	Foundations Academy	C	1	55.4
130	Foundations Academy - Future Auditorium	C	1	57.4
131	SFR	B	1	65.7
132	SFR	B	4	69.3
133	SFR	B	1	66.9
134	Banbury (SFR)	B	6	58
135	SFR	B	1	62.3
136	Bristol Heights (SFR)	B	5	65.0
137	SFR	B	7	64.3
138	Bristol Heights (SFR)	B	6	63.2
139	Banbury (SFR)	B	6	62.3
140	Banbury (SFR)	B	4	60.8
141	Church of the Latter Day Saints	D	1	56.9 (36.9)
141a	Bristol Heights (SFR)	B	1	62.3
142	Bristol Heights (SFR)	B	5	61.0
143	Banbury (SFR)	B	7	60.4
144	Bristol Heights (SFR)	B	5	63.5
145	Banbury (SFR)	B	2	63.4
146	Law Offices	E	1	63.9
147	Banbury (SFR)	B	2	65.7
148	Staples	E	2	65.8
149	Banbury (SFR)	B	1	62.2
150	Banbury (SFR)	B	3	62.5
151	Banbury (SFR)	B	1	63.4
152	SFR	B	2	67.8
153	SFR	B	1	68.3
154	Eagle Marketplace (restaurants, spa, gym, insurance company, furniture store)	E	20	59.7
155	Walgreens	E	1	66.1
156	Key Bank	E	1	65.2
157	Sinclair/Jack in the Box	E	2	67.6

Receiver No.	Location Description	NAC Activity Category	No. of Units	No Build (2040) Noise Level (dBA)
158	Zions Bank	E	1	64.3
159	A&W/Kentucky Fried Chicken	E	2	64.5
160	Baird's Dry Cleaning	E	1	64.3
161	Target	E	1	58.0
162	Bristol Heights (SFR)	B	5	61.2
163	Bristol Heights (SFR)	B	3	67.3
164	Bristol Heights (SFR)	B	5	67.8
	*Indicates interior noise level. The shading indicates that the noise levels will exceed the ITD/FHWA NAC			

6.0 MITIGATION

6.1 MITIGATION OPTIONS

The ITD Noise Policy states that if noise impacts are predicted for sensitive noise receivers (e.g., residences, schools, public open spaces, etc.) noise mitigation must be considered. Mitigation options include shifting the horizontal alignment, depressing the roadway, acquiring real property, managing traffic, and constructing noise barriers. The applicability of these options is discussed below.

- Shifting the horizontal alignment of the roadway away from impacted sites: This option would increase the distance between the roadway (source) and the affected land use or activity (receiver), thereby reducing the noise levels for the receiver. The US 20/26 Design year Alternative alignment was shifted in order to minimize impacts to historical and Section 4(f) resources, and high voltage power lines. Because many of the historic and Section 4(f) resources are also noise-sensitive receivers, this mitigation option has been applied where practicable to meet the project design requirements.
- Depressing the roadway: This option would place the mainline of the highway below the level of the surrounding terrain to minimize noise impacts. However, the additional costs of roadway excavation, roadway drainage, and operational changes must be considered. This option was not applied because of design constraints including cross-street locations, access, and drainage.
- Managing traffic (e.g., detouring trucks, reducing speed, etc.): Truck and/or speed restrictions may be evaluated as a means to mitigate noise in some extreme cases. Such restrictions are not recommended when in conflict with the intended use of the roadway or when they would create unreasonable delay or hardship for the traveling public. Applying such restrictions would be contrary to the project purpose.
- Constructing noise barriers between traffic and impacted receivers: The most widely used roadway noise mitigation technique involves the construction of noise barriers. Barriers can consist of walls, berms, or a combination of both. Noise barriers are considered when feasible and reasonable conditions are met. Barriers are intended to mitigate impacts to representative (modeled) receivers, which include first- and second-row residences in the vicinity of representative receivers. However, it is important to note that noise barriers do not completely eliminate noise. Specifically, noise barriers along a highway are only effective for homes within 300 feet of the highway.

As depicted in Figures 9-13 and Table 6.1 and discussed below, impacted sensitive receivers were considered for mitigation.

6.2 CONSIDERATIONS

Potential noise barriers were considered for each of the residential receiver locations that were predicted to exceed ITD criteria. Noise barriers were evaluated for their ability to adhere to the reasonable and feasible criteria defined in the Noise Criteria section (Section 2.0). The threshold of noise reduction, which determines a "benefited" residence, is five dBA. If a barrier is not considered feasible, then reasonable criteria is not reviewed in accordance with ITD's Traffic Noise Policy. Based on the TNM results:

- Residential Receivers 22, 23, 24, 149, 150 and 151 are not impacted due to an existing berm, retaining wall and topography. Similarly, the area near Spurwing Greens includes receivers 95, 96 and 97 and is not impacted due to existing earth berms and topography.

- Commercial Receivers 5, 6, 108, 114, and 118; along with one church Receiver 120, are isolated receivers, or require direct access to US 20/26. Constructing a noise barrier to benefit these receivers would not be feasible due to breaks in the barrier to provide access.

    - Receiver 101 is Spurwing Golf Course where a berm currently exists. Raising the height of this berm was not considered.

- Residential Receivers 4, 11, 12, 21, 25a, 26-27, 31-33, 37, 41-42, 44-45, 47, 51, 53-57, 59, 60, 62-63, 65-68, 70-72, 74, 77-80, 83, 84, 87, 90, 98, 112, 121, 122, 133, 135 and 152 are isolated receivers, or require direct access to US 20/26 or Eagle Road. Constructing a noise barrier to benefit these receivers would not be feasible due to breaks in the barrier to provide access. Receiver 136 is located where an emergency access for fire trucks is needed and a noise barrier at this location would also have a break in the barrier.

- Receivers 10, 16, 20, 25, 99, 100, 103, 104, 105, 125, 136, 137, 138, 139, 140, 141, 141a, 142, 144, 145, 147, 163 and 164 were considered for noise barrier mitigation and were further evaluated.

The locations of potential noise barriers are shown on Figures 9 through 13 and the mitigation conclusions are summarized in Tables 6.1 and 6.2. Noise Barrier Abatement Checklists for each of the impacted areas are provided in Appendix B.

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Parametrix

0 150 300 600 Feet

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Impacted Receivers

- Benefits more than 5dBA
- Benefits less than 5dBA

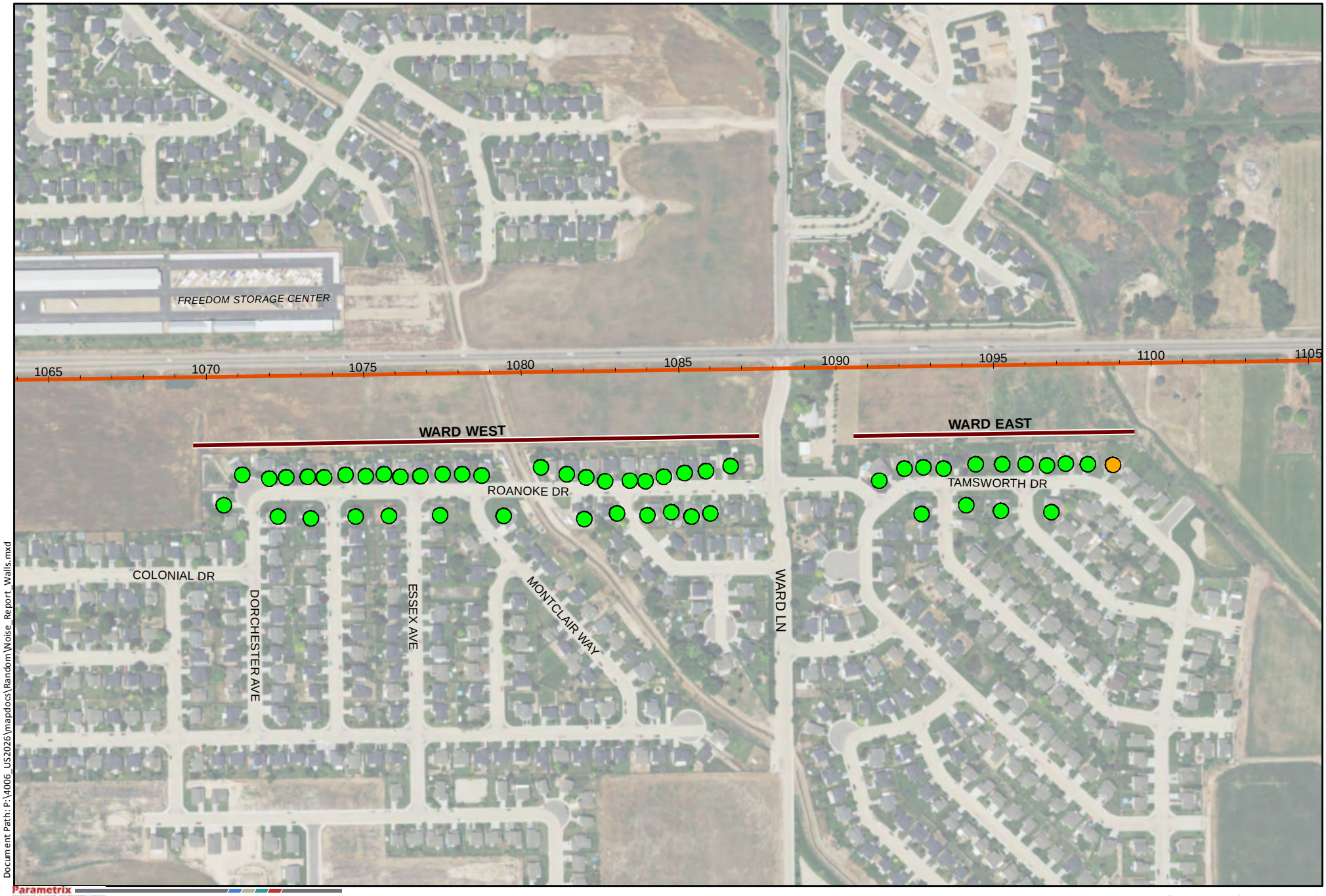
Noise Barrier Considered

- Noise Wall Not Recommended (Feasible, not Reasonable)
- Noise Wall Recommended (Feasible and Reasonable)
- Proposed US 20/26 Centerline*

**Stationing shown in black.*

FIGURE 9
Mitigation Evaluation

US 20/26 Corridor
Preservation Study



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Parametrix

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Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Impacted Receivers

- Benefits more than 5dBA
- Benefits less than 5dBA

Noise Barrier Considered

- Noise Wall Not Recommended (Feasible, not Reasonable)
- Noise Wall Recommended (Feasible and Reasonable)
- Proposed US 20/26 Centerline*

**Stationing shown in black.*

FIGURE 10
Mitigation Evaluation

US 20/26 Corridor
Preservation Study

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Parametrix

0 150 300 600 Feet

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Impacted Receivers

- Benefits more than 5dBA
- Benefits less than 5dBA

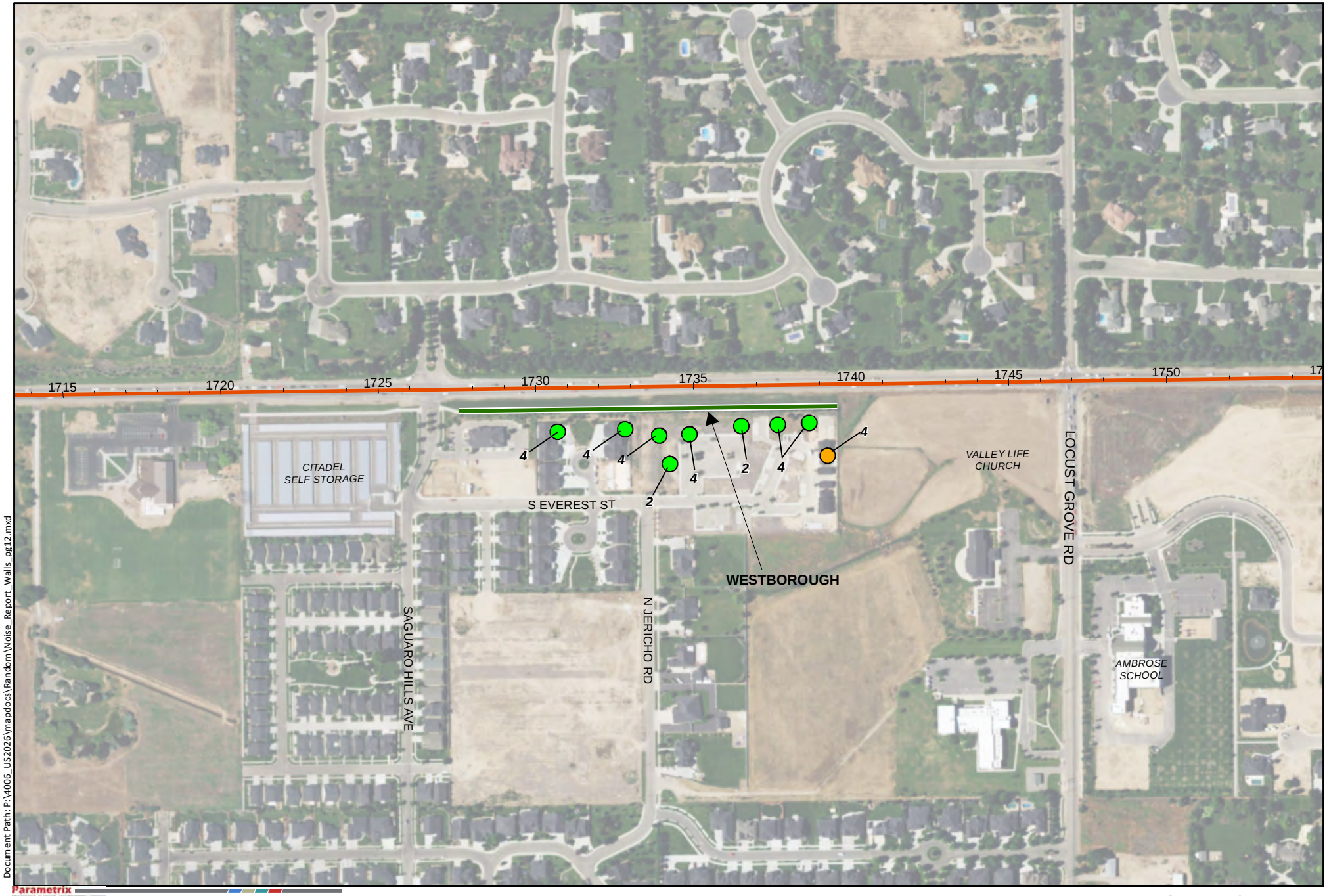
Noise Barrier Considered

- Noise Wall Not Recommended (Feasible, not Reasonable)
- Noise Wall Recommended (Feasible and Reasonable)
- Proposed US 20/26 Centerline*

**Stationing shown in black.*

FIGURE 11
Mitigation Evaluation

US 20/26 Corridor
Preservation Study



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Parametrix

0 150 300 600 Feet

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Impacted Receivers**

- Benefits more than 5dBA
- Benefits less than 5dBA

Noise Barrier Considered

- Noise Wall Not Recommended (Feasible, not Reasonable)
- Noise Wall Recommended (Feasible and Reasonable)
- Proposed US 20/26 Centerline*

**Stationing shown in black.*
*** # Label represent the number of receivers benefitted*

FIGURE 12
Mitigation Evaluation

US 20/26 Corridor
Preservation Study

Document Path: P:\4006_US2026\mapdocs\Random\Noise_Report_Walls_pg13.mxd

Parametrix

0 150 300 600 Feet

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN,

Impacted Receivers

- Benefits more than 5dBA
- Benefits less than 5dBA

Noise Barrier Considered

- Noise Wall Not Recommended (Feasible, not Reasonable)
- Noise Wall Recommended (Feasible and Reasonable)
- Existing Berm
- Proposed US 20/26 Centerline*

**Stationing shown in black.*

FIGURE 13
Mitigation Evaluation

US 20/26 Corridor
Preservation Study

TABLE 6.1: MITIGATION EVALUATION SUMMARY FOR FEASIBLE NOISE BARRIERS

Feasible Barrier ID	Receiver No.	Total Receivers Benefited	2040 Noise Level (dBA)[A]	2040 Without Barrier Noise Level (dBA)[B]	2040 With Barrier Noise Level (dBA)	Barrier Insertion Loss (dBA)	Barrier Dimensions		Barrier Cost			Recommended?
							Approximate Mainline Stations	Height (ft.)	Planning Estimate	Cost per Benefited Receiver	Allowable Adjusted Cost per Benefited Receiver	Yes or No
Lakey's #2 Mobile Home Park	10	6	NA	65.7-68.6	57.8-63.3	1.9-7.7	1049+35 - 1053+45	12	$142,680	$23,780	$33,250	Yes
Ward West	16, 20	36	NA	67.5-66.3	61.7-59.3	4.7-6.7	1069+59 – 1087+55	16-18	$931,567	$25,876	$24,250	No
Ward East	25	14	NA	64.1-68.5	61.4-59.2	1.7-8.1	1090+55 – 1099+47	16	$413,888	$29,563	$24,250	No
Silverleaf	99, 100, 103	14	68.0-69.4	67.3-71.0	69.4-62.1	1.6-7.2	1606+92 - 1616+36	12	$328,802	$23,485	$30,250	Yes
Challenger School	104, 105	4	NA	69.5-68.6	64.5-63.6	5	1618+25 - 1633+25	12	$441,000	$110,250	$28,250	No
Westborough	125	28	69.5-68.6	64.7-69.5	59.9-65.2	3.1-6.9	1727+58 - 1739+58	14	$487,084	$17,395	$24,250	Yes
Bristol Heights West	137, 138, 141	14	66.7	68.1-73.9	62.0-66.0	3.8-9.2	1771+70 – 1781+14	8-10	$268,192	$19,156	$24,250	Yes
Bristol Heights Central	141a	5	67.2-73.9	73.9-67.2	63.3-64.3	3.3-10.6	1782+30 - 1786+17	8-10	$112,230	$22,446	$24,250	Yes
Bristol Heights East	142, 144	10	62.6-67.9	72.2-69.9	62.7-68.2	4.0-9.1	1787+25 – 1793+41	8-12	$154,773	$15,477	$24,250	Yes

Feasible Barrier ID	Receiver No.	Total Receivers Benefited	2040 Noise Level (dBA)[A]	2040 Without Barrier Noise Level (dBA)[B]	2040 With Barrier Noise Level (dBA)	Barrier Insertion Loss (dBA)	Barrier Dimensions		Barrier Cost			Recommended?
							Approximate Mainline Stations	Height (ft.)	Planning Estimate	Cost per Benefited Receiver	Allowable Adjusted Cost per Benefited Receiver	Yes or No
Banbury Central	139, 140, 143, 145	19	63.7-66.1	69.6-70.5	60.2-62.9	6.6-9.1	1773+55 – 1793+97	10	$500,290	$26,331	$24,250	No
Banbury East	147	2	67.5	73.8	61.8	7.7	1795+00 – 1799+00	6-12	$108,750	$54,375	$24,250	No
Bristol Heights Eagle Road	163, 164	7	67.4-68.2	69.6-71.1	63.0 - 64.5	1.0 -8.1	40+20 – 46+15	8	$139,351	$19,907	$24,250	Yes

[A] = Replaces existing barrier at existing height [B] = If existing barrier is not replaced

TABLE 6.2: SUMMARY OF NOISE BARRIERS EVALUATED

Barrier ID	Feasible?	Reasonable (Why)?
Lakey's #2 Mobile Home Park	Yes	Yes
Ward West	Yes	No (Cost)
Ward East	Yes	No (Cost)
Silverleaf	Yes	Yes
Challenger School	Yes	No (Cost)
Westborough	Yes	Yes
Bristol Heights West	Yes	Yes
Bristol Heights Central	Yes	Yes
Bristol Heights East	Yes	Yes
Banbury Central	Yes	No (Cost)
Banbury East	Yes	No (Cost)
Bristol Heights Eagle Road	Yes	Yes

A planning cost of $29.00 per square foot was used to calculate the cost of all barriers, except for the Banbury Central and Challenger barriers, for which a cost of $24.50 was used due to the barrier's length (See definitions, *Barrier Cost Planning Estimate*). Actual square footage costs for barrier construction are expected to be different than those estimated during design. For example, the total barrier costs provided in Table 6.1 do not include ROW acquisition, material fill or excavation, or utility relocation. It was assumed that a barrier is desired by landowners for this analysis. During the reevaluation of each phase, property owners will be surveyed for desirability.

6.2.1 LAKEY'S MOBILE HOME PARK

Noise modeling predicted that receiver 10 within the Lakey's Mobile Home Park would be impacted by the Design Year Alternative. The barrier was placed with the assumption that the frontage business would be acquired for ROW. The proposed noise barrier location begins near Station 1049+35 and continues east to Station 1053+45. As currently positioned, the barrier height would be 12 feet. The barrier was reviewed to extend further to the east to benefit other mobile homes, however, due to position of the Lakey's Café, other adjacent commercial uses, topography and property ownership, the barrier was not extended to the east. The potential barrier would reduce noise levels below the ITD NAC and the ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first and second rows of receivers adjacent to the US 20/26 corridor. The noise barrier is feasible and reasonable (see Table 6.1).

6.2.2 WARD WEST

Noise modeling predicted that receivers 16 and 20 within the Delaware Park subdivision would be impacted by the Design Year Alternative. There is currently a privacy wall in this area, but the wall does not offer noise abatement and was not included in the model. The proposed noise barrier location begins near Station 1069+59 and continues east to Station 1087+55. An alternative location of this

barrier could be located between the future pathway and the roadway; however, under this alternative, the barrier would likely be taller (and therefore more expensive) due to the distance relationship between the receivers and the roadway. As currently positioned, the barrier height would be 16-18 feet. The potential barrier would reduce noise levels below the ITD NAC and the ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first and second rows of receivers adjacent to the US 20/26 corridor. As proposed, the noise barrier is feasible but not reasonable because the cost would exceed $24,250 per benefitted receiver, the cost allowance as defined by ITD (see Table 6.1).

6.2.3 WARD EAST

Noise modeling predicted that receiver 25 within the Delaware Park subdivision would be impacted by the Design Year Alternative. There is currently a privacy wall in this area, but the wall does not offer noise abatement and was not included in the model. The proposed noise barrier location begins near Station 1090+55 and continues east to Station 1099+47. This wall is located approximately 290 feet south of US 20/26, near the impacted homes. The barrier would reduce noise levels below the ITD NAC and the ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first and second row of receivers adjacent to the US 20/26 corridor. An alternative location of this barrier could be located either south of the existing pathway or between the pathway and the roadway; however, under this alternative, the proposed barrier would likely be taller (and therefore more expensive) due to the distance between the receivers and the barrier. The best design for an effective and lower in height barrier would be to locate the barrier closer to the roadway or closer to the impacted receivers. As proposed, the noise barrier is feasible but not reasonable because the cost would exceed $24,250 per benefitted receiver, the cost allowance as defined by ITD (see Table 6.1).

6.2.4 SILVER LEAF

Noise modeling predicted that receivers 100 and 103 within the Silver Leaf subdivision, and a single-family residence outside the subdivision and adjacent to receiver 99, would be impacted by the Design Year Alternative. Although the concept design indicates the existing barrier would be replaced, the cost of the barrier was estimated as if there were no barrier to be replaced (per ITD standard planning practice). The proposed noise barrier location is south of the US 20/26 corridor, between North Longlake Way and Ten Mile Road, beginning near Station 1606+92 and continuing east to Station 1616+36. The potential barrier height would be 12 feet. The potential barrier would reduce noise levels to, or just above and below, the ITD NAC. The ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first and second rows of receivers adjacent to the US 20/26 corridor. To benefit receiver 99, the potential noise wall for the Silver Leaf subdivision would need to be extended 50 feet to the west. The noise barrier is feasible and reasonable (see Table 6.1).

6.2.5 Challenger School

Noise modeling predicted that receivers 104 and 105 a daycare facility and a private school would be impacted by the Design Year Alternative. A noise barrier could be constructed at the Challenger School. A barrier was not modeled in TNM but an assumed design of a potential barrier was reviewed. The rule-of-thumb is that a barrier should be long enough such that the distance between a receiver and a barrier end is at least four times the perpendicular distance from the receiver to the barrier along a line drawn between the receiver and the roadway. The proposed noise barrier location begins near Station 1618+25 and continues east to Station 1633+25. Based on other barriers in the vicinity; assuming a 12-ft high is effective for receivers 104 and 105, barrier reasonability would be calculated as follows: 12 feet high x 1,500 feet long x $24.50/square foot = $441,000. Four receivers would benefit from the barrier which would equate to $110,250/receiver. The noise barrier is feasible but not reasonable because the cost would exceed $28,250 per benefitted receiver, the cost allowance as defined by ITD (see Table 6.1).

6.2.6 Westborough

Noise modeling predicted that receiver 125 within the Westborough subdivision would be impacted by the Design Year Alternative. Although the concept design indicates the existing barrier would be replaced, the cost of the barrier was estimated as if there were no barrier to be replaced (per ITD standard planning practice). The proposed noise barrier location begins near Station 1727+58 and continues east to Station 1739+58. The barrier height would be 14 feet high. The potential barrier would reduce noise levels below the ITD NAC and the ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first and second rows of receivers adjacent to the US 20/26 corridor. The noise barrier is feasible and reasonable (see Table 6.1).

6.2.7 Bristol Heights West

Noise modeling predicted that receivers 137, 138 and 141 within the Bristol Heights subdivision would be impacted by the Alternative. Although the concept design indicates the existing barrier would be replaced, the cost of the barrier was estimated as if there were no barrier to be replaced (per ITD standard planning practice). The proposed noise barrier location begins near Station 1771+70 and continues east to Station 1781+14. The barrier height would range from 8 to 10 feet. The potential barrier would reduce noise levels below the ITD NAC. The ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first-row and second-row receivers adjacent to the US 20/26 corridor. The noise barrier is feasible and reasonable (see Table 6.1).

6.2.8 Bristol Heights Central

Noise modeling predicted that receiver 141a within the Bristol Heights subdivision would be impacted by the Design Year Alternative. Although the concept design indicates the existing barrier would be replaced, the cost of the barrier was estimated as if there were no barrier to be replaced (per ITD standard planning practice). Some receivers (single-family residences), would not be impacted; however, they were included in the review because of their location relative to the potential barrier. These receivers were included in the number of benefited receivers for cost calculations. The proposed noise barrier location is south of the US 20/26 corridor, between North Bennington Way and North Royal Park Avenue, beginning near Station 1782+30 and continuing east to Station 1786+17. The barrier height would range from 8 to 10 feet. The potential barrier would reduce noise levels to, or just above and below, the ITD NAC. The ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first and second rows of receivers adjacent to the US 20/26 corridor.

The existing berms that wrap to the south, adjacent to North Bennington Way and North Royal Park Avenue, contributes to additional noise reduction of the proposed noise barrier and would need to remain in order to mitigate future noise impacts. However, it is not required for the wall to be feasible. The noise barrier is feasible and reasonable (see Table 6.1).

6.2.9 Bristol Heights East

Noise modeling predicted that receiver 142 and 144 within the Bristol Heights subdivision would be impacted by the Design Year Alternative. Although the concept design indicates the existing barrier would be replaced, the cost of the barrier was estimated as if there were no barrier to be replaced (per ITD standard planning practice). The proposed noise barrier location is south of the US 20/26 corridor, between Eagle Road and North Bennington Way, beginning near Station 1787+25 and continuing east to Station 1793+41. The barrier height would range from 8 to 12 feet. The potential barrier would reduce noise levels to, or just above and below, the ITD NAC. The ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first and second rows of receivers adjacent to the US 20/26 corridor.

The existing berm that wraps to the south, adjacent to North Bennington Way, contributes to additional noise reduction of the proposed noise barrier and would need to remain in order to mitigate future noise impacts. However, it is not required for the wall to be feasible. The noise barrier is feasible and reasonable (see Table 6.1).

6.2.10 BANBURY CENTRAL

Noise modeling predicted that receivers 139, 140 and 145 within the Banbury subdivision would be impacted by the Design Year Alternative. Receiver 143 is not anticipated to be impacted by the Design Year Alternative. However, due to the location of the receiver, relative to the potential noise barrier, this receiver will be benefitted. Although the concept design indicates the existing barrier would be replaced, the cost of the barrier was estimated as if there were no barrier to be replaced (per ITD standard planning practice). The proposed noise barrier location is north of the US 20/26 corridor, between South White Post Way and West Stafford Drive, beginning near Station 1773+55 and continuing east to Station 1793+97. The barrier height would be 10 feet. The potential barrier would reduce noise levels at, or just above and below, the ITD NAC. The ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first row and second row of receivers adjacent to the US 20/26 corridor. Barrier review included "wrapping" the barrier to the north near receiver 145, but this did not result in additional noise attenuation.

The barrier would not provide the same attenuation without also constructing the Banbury East barrier; both barriers would need to be constructed to achieve noise reductions at receivers 147 and 145. Final design may need to review landscaping berm/wall combinations for replacement that is uniform in height for the entire neighborhood frontage along the US 20/26 corridor. The noise barrier is feasible but not reasonable because the cost would exceed $24,250 per benefitted receiver, the cost allowance as defined by ITD (see Table 6.1).

6.2.11 BANBURY EAST

Noise modeling predicted that receiver 147 within the Banbury subdivision would be impacted by the Design Year Alternative. Although the concept design indicates the existing barrier would be replaced, the cost of the barrier was estimated as if there were no barrier to be replaced (per ITD standard planning practice). The proposed noise barrier location is north of the US 20/26 corridor, between South White Post Way and Eagle Road, beginning near Station 1795+00, continuing east to Eagle Road, and wrapping to the north at 1799+00. At this location of the wrap a retaining wall and berm currently exists and was included in the analysis.

The barrier would not provide the same attenuation without also constructing the Banbury Central barrier; both barriers would need to be constructed to achieve the noise reduction goal at receiver 147. The barrier height would range from 6 to 12 feet. The potential barrier would reduce noise levels below the ITD NAC. The ITD traffic noise reduction design goal of 7 dBA would be achieved. The noise barrier is feasible but not reasonable because the cost would exceed $24,250 per benefitted receiver, the cost allowance as defined by ITD (see Table 6.1).

6.2.12 BRISTOL HEIGHTS EAGLE ROAD

Noise modeling predicted that receiver 163 and 164 within the Bristol Heights subdivision would be impacted by the Design Year Alternative. Although the concept design indicates the existing barrier would be replaced, the cost of the barrier was estimated as if there were no barrier to be replaced (per ITD standard planning practice). The proposed noise barrier location is south of the US 20/26 corridor and west of Eagle Road. The proposed noise barrier accommodates the existing 5-foot wide pedestrian path that provides access from the subdivision to the sidewalk along Eagle Road by using two separate noise walls with the pathway re-routed through the break in the walls. The two noise walls would have an overlap of 6-feet to the north and south to enhance the effectiveness of the wall.

Other barrier layout options were considered in this area. One option extended the noise wall north only up to the existing pathway location, however this option benefited only four receivers instead of the seven benefitted with the proposed configuration so this option was not advanced. Another option extended the wall north similar to the proposed option, but it eliminated the break in the noise wall and thereby eliminated the pathway connection from the subdivision to Eagle Road. This wall configuration did not increase the number of benefited receivers or reduce the noise levels for benefitted receives when compared the proposed configuration so this option was also not advanced. Other options were considered to wrap the noise wall away from Eagle Road at the north end of the wall, but wrapping the noise wall was not considered feasible because there is no right-of-way or easement available between the private residential and commercial properties that would be needed to construct and maintain the wall.

The noise wall, as proposed, begins at Eagle Road Station 40+20 and continues north 514 feet to Station 45+34. The northern section of this noise wall has a 6-foot overlap with the southern section and begins at Eagle Road Station 45+28. It continues north 87 feet to Station 46+15. The barrier height would be 8 feet. The potential barrier would reduce noise levels to, or just above and below, the ITD NAC. The ITD traffic noise reduction design goal of 7 dBA would be achieved. The barrier would benefit the first and second rows of receivers adjacent to the US 20/26 corridor. The noise barrier is feasible and reasonable (see Table 6.1).

6.3 Coordination with Local Government Officials

The results of this noise analysis should be considered during the planning phase for development or redevelopment of land parcels along the US 20/26.

6.3.1 Noise Compatible Land Use Planning

Highway traffic noise should be reduced through a program of shared responsibility. Noise barriers are often not the answer to highway traffic noise impacts. Barriers can be aesthetically unpleasing, are physically restrictive, and are often not practical for Idaho's rural or urban landscapes due to driveways. Table 6.3 provides noise abatement guidelines for planning and design purposes along US 20/26 within the project area. Examples of such measures include:

- Requiring acceptable setbacks for adjacent residential developments (e.g., at least 200 feet (from roadway centerline) without noise mitigation for new residential development north and south of US 20/26 between Eagle Road and Midland Road and 150 feet between Midland Road and I-84).
- Requiring developers to construct approved noise barriers along US 20/26 when developing properties adjacent to the roadway.
- Enforcing zoning categories, which allow agricultural, commercial, and industrial uses.

TABLE 6.3: TRANSECT NOISE MODEL RESULTS

DISTANCE TO US 20/26 DESIGN YEAR ALT. CENTERLINE IN FEET	NOISE LEVEL (dBA)
Eagle Road to Meridian	
50	76.3
75	73.5
100	71.4
125	70.1
150	68.7
200	66.5
250	64.5
300	62.9
400	60.8
800	55.9
Meridian to Midland	
50	70.8
75	70.0
100	68.6
125	67.4
150	66.3
200	64.7
250	63.1
300	61.7
400	59.7
800	54.8
Midland to I-84	
50	68.8
75	68.3
100	67.7
125	67.0
150	66.2
200	65.5
250	64.9
300	63.5
400	63.0
800	57.7
Shading indicates that the noise levels will exceed the FHWA NAC and/or the criteria stated in the ITD Noise Policy.	

As discussed in Section 4.0, Affected Environment, none of the local jurisdictions have established ordinances preventing residential development adjacent to arterials. However, some of the jurisdictions have established buffer and setback requirements. Land developers should be required, or at least encouraged, to implement "noise compatible" development in their projects. One example is to provide green belts and other open space areas between residential developments and high-traffic or high-speed roadways. Also, landscaped berms, often incorporating bike or pedestrian pathways, can reduce noise impacts while providing an aesthetically pleasing entrance or boundary to residential developments.

7.0 SUMMARY AND CONCLUSIONS

The traffic noise analysis described herein indicated that the noise levels for the Design Year Alternative would increase relative to existing noise levels. Areas of higher density, single-family residential development that would experience the noise level increases are concentrated primarily on the east side of the US 20/26 corridor between West Stafford Drive and Eagle Road.

Noise mitigation has been considered in 12 areas. Noise barriers were considered feasible but not reasonable at 5 locations due to the cost per benefitted receiver. Noise barrier were considered feasible and reasonable at the Jan N Mobile Park, Silverleaf, Westborough, and Bristol Heights West, Central, East, and Eagle Road locations. The proposed barrier locations and height ranges described herein are preliminary, and may change as the project design is refined. It is important to note that noise walls are designed to reduce noise levels to a tolerable level, but cannot completely eliminate noise, and that noise barriers along a highway are only effective for homes within approximately 300 feet of the highway. Beyond that, noise barriers are less effective, but the natural decrease in noise with distance usually reduces noise levels. Therefore, even with noise barriers, residents within 500 to 1,000 feet of US 20/26 would likely be able to hear traffic noise.

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Traffic Noise Technical Study

Appendix

US 20/26, Corridor Study Jct I-84 to Eagle Road

Ada and Canyon Counties, Idaho

Project No.: STP 3230 (106)

ITD Key No.: 07826

November 28, 2016

Prepared for:

Parametrix, Inc.

7761 W. Riverside Drive, Suite 201

Boise, ID 83714-1336

Idaho Transportation Department

3311 W. State Street

Boise, ID 83703

Prepared by:

Axiom-Points, LLC.

PO Box 595

Star, ID 83669

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APPENDIX A: TRAFFIC VOLUMES

SEGMENT; US 20/26	I-84 TO AVIATION			AVIATION TO SMEED			SMEED TO KCID			KCID TO WARD		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***1265***	***745***	***520***	***1046***	***619***	***427***	***1000***	***603***	***397***	***892***	***498***	***394***
Auto	***1101***	648	452	***910***	539	371	***870***	525	345	***776***	433	343
Medium	***89***	52	36	***73***	43	30	***70***	42	28	***62***	35	28
Heavy Truck	***51***	30	21	***42***	25	17	***40***	24	16	***36***	20	16
Bus	***13***	7	5	***10***	6	4	***10***	6	4	***9***	5	4
Motorcycle	***13***	7	5	***10***	6	4	***10***	6	4	***9***	5	4

SEGMENT; CROSS ROADS NORTH OF 20/26	AVIATION			SMEED			KCID			WARD		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***203***	***67***	***136***	***45***	***20***	***25***	***233***	***83***	***150***	***52***	***25***	***27***
Auto	***187***	62	125	***41***	18	23	***214***	76	138	***48***	23	25
Medium	***10***	3	7	***2***	1	1	***12***	4	8	***3***	1	1
Heavy Truck	***6***	2	4	***1***	1	1	***7***	2	5	***2***	1	1
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	AVIATION			SMEED			KCID			WARD		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***228***	***99***	***129***	***173***	***81***	***92***	***162***	***96***	***66***	***147***	***95***	***52***
Auto	***210***	91	119	***159***	75	85	***149***	88	61	***135***	87	48
Medium	***11***	5	6	***9***	4	5	***8***	5	3	***7***	5	3
Heavy Truck	***7***	3	4	***5***	2	3	***5***	3	2	***4***	3	2
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	WARD TO MIDDLETON			MIDDLETON TO MIDLAND			MIDLAND TO NORTHSIDE			NORTHSIDE TO FRANKLIN		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***833***	***440***	***393***	***991***	***437***	***554***	***1000***	***434***	***566***	***1110***	***506***	***604***
Auto	***725***	383	342	***862***	380	482	***870***	378	492	***966***	440	525
Medium	***58***	31	28	***69***	31	39	***70***	30	40	***78***	35	42
Heavy Truck	***33***	18	16	***40***	17	22	***40***	17	23	***44***	20	24
Bus	***8***	4	4	***10***	4	6	***10***	4	6	***11***	5	6
Motorcycle	***8***	4	4	***10***	4	6	***10***	4	6	***11***	5	6

SEGMENT; CROSS ROADS NORTH OF 20/26	MIDDLETON			MIDLAND			NORTHSIDE			FRANKLIN		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***810***	***312***	***498***	***23***	***6***	***17***	***15***	***5***	***10***	***18***	***10***	***8***
Auto	***745***	287	458	***21***	6	16	***14***	5	9	***17***	9	7
Medium	***41***	16	25	***1***	0	1	***1***	0	1	***1***	1	0
Heavy Truck	***24***	9	15	***1***	0	1	***0***	0	0	***1***	0	0
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	MIDDLETON			MIDLAND			NORTHSIDE			FRANKLIN		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***773***	***379***	***394***	***43***	***29***	***14***	***265***	***110***	***155***	***280***	***122***	***158***
Auto	***711***	349	362	***40***	27	13	***244***	101	143	***258***	112	145
Medium	***39***	19	20	***2***	1	1	***13***	6	8	***14***	6	8
Heavy Truck	***23***	11	12	***1***	1	0	***8***	3	5	***8***	4	5
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

Existing

SEGMENT; US 20/26	FRANKLIN TO 11TH			11TH TO CAN ADA			CAN ADA TO STAR			STAR TO BLACK CAT		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***1241***	***589***	***652***	***1277***	***609***	***668***	***1455***	***719***	***736***	***1450***	***632***	***818***
Auto	***1080***	512	567	***1111***	530	581	***1266***	626	640	***1262***	550	712
Medium	***87***	41	46	***89***	43	47	***102***	50	52	***102***	44	57
Heavy Truck	***50***	24	26	***51***	24	27	***58***	29	29	***58***	25	33
Bus	***12***	6	7	***13***	6	7	***15***	7	7	***15***	6	8
Motorcycle	***12***	6	7	***13***	6	7	***15***	7	7	***15***	6	8

SEGMENT; CROSS ROADS NORTH OF 20/26	11TH			CAN ADA			STAR			BLACK CAT		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***12***	***6***	***6***	***20***	***7***	***13***	***1149***	***442***	***707***	***9***	***9***	***0***
Auto	***11***	6	6	***18***	6	12	***1057***	407	650	***8***	8	0
Medium	***1***	0	0	***1***	0	1	***57***	22	35	***0***	0	0
Heavy Truck	***0***	0	0	***1***	0	0	***34***	13	21	***0***	0	0
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	11TH			CAN ADA			STAR			BLACK CAT		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***67***	***34***	***33***	***326***	***147***	***179***	***610***	***265***	***345***	***153***	***87***	***66***
Auto	***62***	31	30	***300***	135	165	***561***	244	317	***141***	80	61
Medium	***3***	2	2	***16***	7	9	***31***	13	17	***8***	4	3
Heavy Truck	***2***	1	1	***10***	4	5	***18***	8	10	***5***	3	2
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	BLACK CAT TO TREE FARM			TREE FARM TO TEN MILE			TEN MILE TO LONG LAKE			LONG LAKE TO LINDER		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***1525***	***662***	***863***	***1524***	***639***	***885***	***1758***	***748***	***1010***	***1883***	***800***	***1083***
Auto	***1327***	576	751	***1326***	556	770	***1529***	651	879	***1638***	696	942
Medium	***107***	46	60	***107***	45	62	***123***	52	71	***132***	56	76
Heavy Truck	***61***	26	35	***61***	26	35	***70***	30	40	***75***	32	43
Bus	***15***	7	9	***15***	6	9	***18***	7	10	***19***	8	11
Motorcycle	***15***	7	9	***15***	6	9	***18***	7	10	***19***	8	11

SEGMENT; CROSS ROADS NORTH OF 20/26	TREE FARM			TEN MILE			LONG LAKE			LINDER		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***117***	***59***	***58***							***1198***	***620***	***578***
Auto	***108***	54	53							***1102***	570	532
Medium	***6***	3	3							***60***	31	29
Heavy Truck	***4***	2	2							***36***	19	17
Bus	***0***	0	0							***0***	0	0
Motorcycle	***0***	0	0							***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	TREE FARM			TEN MILE			LONG LAKE			LINDER		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***1***	***1***	***0***	***378***	***190***	***188***	***356***	***190***	***166***	***832***	***442***	***390***
Auto	***1***	1	0	***348***	175	173	***328***	175	153	***765***	407	359
Medium	***0***	0	0	***19***	10	9	***18***	10	8	***42***	22	20
Heavy Truck	***0***	0	0	***11***	6	6	***11***	6	5	***25***	13	12
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	LINDER TO FOX RUN			FOX RUN TO MERIDIAN			MERIDIAN TO CASTLEBURY			CASTLEBERRY TO LOCUST GROVE		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***1914***	***829***	***1085***	***1977***	***853***	***1124***	***2046***	***877***	***1169***	***2067***	***863***	***1204***
Auto	***1665***	721	944	***1720***	742	978	***1780***	763	1017	***1798***	751	1047
Medium	***134***	58	76	***138***	60	79	***143***	61	82	***145***	60	84
Heavy Truck	***77***	33	43	***79***	34	45	***82***	35	47	***83***	35	48
Bus	***19***	8	11	***20***	9	11	***20***	9	12	***21***	9	12
Motorcycle	***19***	8	11	***20***	9	11	***20***	9	12	***21***	9	12

SEGMENT; CROSS ROADS NORTH OF 20/26	FOX RUN			MERIDIAN			CASTLEBURY			LOCUST GROVE		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***22***	***3***	***19***	***175***	***88***	***87***	***48***	***17***	***31***	***222***	***140***	***82***
Auto	***20***	3	17	***161***	81	80	***44***	16	29	***204***	129	75
Medium	***1***	0	1	***9***	4	4	***2***	1	2	***11***	7	4
Heavy Truck	***1***	0	1	***5***	3	3	***1***	1	1	***7***	4	2
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	FOX RUN			MERIDIAN			CASTLEBURY			LOCUST GROVE		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***115***	***59***	***56***	***402***	***212***	***190***	***109***	***63***	***46***	***646***	***289***	***357***
Auto	***106***	54	52	***370***	195	175	***100***	58	42	***594***	266	328
Medium	***6***	3	3	***20***	11	10	***5***	3	2	***32***	14	18
Heavy Truck	***3***	2	2	***12***	6	6	***3***	2	1	***19***	9	11
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

Existing

SEGMENT; US 20/26	LOCUST GROVE TO STAFFORD			STAFFORD TO EAGLE			EAST OF EAGLE ROAD		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***2161***	***964***	***1197***	***2199***	***978***	***1221***	***2524***	***982***	***1542***
Auto	***1880***	839	1041	***1913***	851	1062	***2221***	864	1357
Medium	***151***	67	84	***154***	68	85	***177***	69	108
Heavy Truck	***86***	39	48	***88***	39	49	***76***	29	46
Bus	***22***	10	12	***22***	10	12	***25***	10	15
Motorcycle	***22***	10	12	***22***	10	12	***25***	10	15

SEGMENT; CROSS ROADS NORTH OF 20/26	STAFFORD			EAGLE		
	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***49***	***20***	***29***	***3373***	***1564***	***1809***
Auto	***45***	18	27	2968	1376	1592
Medium	***2***	1	1	236	109	127
Heavy Truck	***1***	1	1	101	47	54
Bus	***0***	0	0	34	16	18
Motorcycle	***0***	0	0	34	16	18

SEGMENT; CROSS ROADS SOUTH OF 20/26	STAFFORD			EAGLE		
	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***0***			***2824***	***1326***	***1498***
Auto	***0***			2485	1167	1318
Medium	***0***			198	93	105
Heavy Truck	***0***			85	40	45
Bus	***0***			28	13	15
Motorcycle	***0***			28	13	15

SEGMENT; US 20/26	I-84 TO AVIATION			AVIATION TO SMEED			SMEED TO KCID			KCID TO WARD		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***5369***	***2878***	***2491***	***4378***	***2287***	***2091***	***4627***	***2426***	***2201***	***5654***	***2752***	***2902***
Auto		835	722		663	606		704	638		798	842
Medium		67	58		53	49		57	154		64	68
Heavy Truck		38	33		30	28		32	88		37	39
Bus		10	8		8	7		8	22		9	10
Motorcycle		10	8		8	7		8	22		9	10

*****Volumes on US 20/26 by vehicle classification are PER LANE for the 2040 Build Alternative**

SEGMENT; CROSS ROADS NORTH OF 20/26	AVIATION			SMEED			KCID			WARD		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***933***	***308***	***625***	***207***	***92***	***115***	***1130***	***440***	***690***	***239***	***115***	***124***
Auto	***858***	283	575	***190***	85	106	***1040***	405	635	***220***	106	114
Medium	***47***	15	31	***10***	5	6	***57***	22	35	***12***	6	6
Heavy Truck	***28***	9	19	***6***	3	3	***34***	13	21	***7***	3	4
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	AVIATION			SMEED			KCID			WARD		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***962***	***421***	***541***	***742***	***349***	***393***	***698***	***409***	***289***	***630***	***380***	***250***
Auto	***885***	387	498	***683***	321	362	***642***	376	266	***580***	350	230
Medium	***48***	21	27	***37***	17	20	***35***	20	14	***32***	19	13
Heavy Truck	***29***	13	16	***22***	10	12	***21***	12	9	***19***	11	8
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	WARD TO MIDDLETON			MIDDLETON TO MIDLAND			MIDLAND TO NORTHSIDE			NORTHSIDE TO FRANKLIN		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***5995***	***2847***	***3148***	***6330***	***2933***	***3397***	***6147***	***2807***	***3340***	***5765***	***2707***	***3058***
Auto		826	2739		851	985		814	969		785	887
Medium		66	220		68	79		65	78		63	71
Heavy Truck		38	126		39	45		37	45		36	41
Bus		9	31		10	11		9	11		9	10
Motorcycle		9	31		10	11		9	11		9	10

*****Volumes on US 20/26 by**

SEGMENT; CROSS ROADS NORTH OF 20/26	MIDDLETON			MIDLAND			NORTHSIDE			FRANKLIN		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***958***	***360***	***598***	***129***	***41***	***88***	***78***	***26***	***52***	***94***	***52***	***42***
Auto	***881***	331	550	***119***	38	81	***72***	24	48	***86***	48	39
Medium	***48***	18	30	***6***	2	4	***4***	1	3	***5***	3	2
Heavy Truck	***29***	11	18	***4***	1	3	***2***	1	2	***3***	2	1
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	MIDDLETON			MIDLAND			NORTHSIDE			FRANKLIN		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***2440***	***1186***	***1254***	***133***	***83***	***50***	***834***	***310***	***524***	***878***	***375***	***503***
Auto	***2245***	1091	1154	***122***	76	46	***767***	285	482	***808***	345	463
Medium	***122***	59	63	***7***	4	3	***42***	16	26	***44***	19	25
Heavy Truck	***73***	36	38	***4***	2	2	***25***	9	16	***26***	11	15
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	FRANKLIN TO 11TH			11TH TO CAN ADA			CAN ADA TO STAR			STAR TO BLACK CAT		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***5994***	***2889***	***3105***	***6146***	***2962***	***3184***	***5890***	***2872***	***3018***	***6202***	***2805***	***3397***
Auto		838	900		859	923		833	875		813	985
Medium		67	72		69	74		67	70		65	79
Heavy Truck		39	41		39	42		38	40		37	45
Bus		10	10		10	11		10	10		9	11
Motorcycle		10	10		10	11		10	10		9	11

*****Volumes on US 20/26 by**

SEGMENT; CROSS ROADS NORTH OF 20/26	11TH			CAN ADA			STAR			BLACK CAT		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***62***	***31***	***31***	***104***	***36***	***68***	***3203***	***1229***	***1974***	***94***	***47***	***47***
Auto	***57***	29	29	***96***	33	63	***2947***	1131	1816	***86***	43	43
Medium	***3***	2	2	***5***	2	3	***160***	61	99	***5***	2	2
Heavy Truck	***2***	1	1	***3***	1	2	***96***	37	59	***3***	1	1
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	11TH			CAN ADA			STAR			BLACK CAT		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***193***	***102***	***91***	***1034***	***471***	***563***	***2842***	***1236***	***1606***	***634***	***333***	***301***
Auto	***178***	94	84	***951***	433	518	***2615***	1137	1478	***583***	306	277
Medium	***10***	5	5	***52***	24	28	***142***	62	80	***32***	17	15
Heavy Truck	***6***	3	3	***31***	14	17	***85***	37	48	***19***	10	9
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	BLACK CAT TO TREE FARM			TREE FARM TO TEN MILE			TEN MILE TO LONG LAKE			LONG LAKE TO LINDER		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***5747***	***2567***	***3180***	***5698***	***2524***	***3174***	***5634***	***2490***	***3144***	***5702***	***2526***	***3176***
Auto		744	922		732	920		722	912		733	921
Medium		60	74		59	74		58	73		59	74
Heavy Truck		34	42		34	42		33	42		34	42
Bus		9	11		8	11		8	10		8	11
Motorcycle		9	11		8	11		8	10		8	11

*****Volumes on US 20/26 by**

SEGMENT; CROSS ROADS NORTH OF 20/26	TREE FARM			TEN MILE			LONG LAKE			LINDER		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***609***	***307***	***302***				***150***	***100***	***50***	***5555***	***2726***	***2829***
Auto	***560***	282	278				***138***	92	46	***5111***	2508	2603
Medium	***30***	15	15				***8***	5	3	***278***	136	141
Heavy Truck	***18***	9	9				***5***	3	2	***167***	82	85
Bus	***0***	0	0				***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0				***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	TREE FARM			TEN MILE			LONG LAKE			LINDER		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***7***	***2***	***5***	***1470***	***730***	***740***	***813***	***406***	***407***	***3856***	***2011***	***1845***
Auto	***6***	2	5	***1352***	672	681	***748***	374	374	***3548***	1850	1697
Medium	***0***	0	0	***74***	37	37	***41***	20	20	***193***	101	92
Heavy Truck	***0***	0	0	***44***	22	22	***24***	12	12	***116***	60	55
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	LINDER TO FOX RUN			FOX RUN TO MERIDIAN			MERIDIAN TO CASTLEBURY			CASTLEBERRY TO LOCUST GROVE		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***6364***	***2741***	***3623***	***6353***	***2712***	***3641***	***6059***	***2553***	***3506***	***6096***	***2542***	***3554***
Auto		795	1051		786	1056		740	1017		737	1031
Medium		64	85		63	85		60	82		59	83
Heavy Truck		37	48		36	49		34	47		34	47
Bus		9	12		9	12		9	12		8	12
Motorcycle		9	12		9	12		9	12		8	12

*****Volumes on US 20/26 by**

SEGMENT; CROSS ROADS NORTH OF 20/26	FOX RUN			MERIDIAN			CASTLEBURY			LOCUST GROVE		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***152***	***53***	***99***	***910***	***458***	***452***	***191***	***88***	***103***	***1154***	***728***	***426***
Auto	***140***	49	91	***837***	421	416	***176***	81	95	***1062***	670	392
Medium	***8***	3	5	***46***	23	23	***10***	4	5	***58***	36	21
Heavy Truck	***5***	2	3	***27***	14	14	***6***	3	3	***35***	22	13
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	FOX RUN			MERIDIAN			CASTLEBURY			LOCUST GROVE		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***231***	***118***	***113***	***1526***	***778***	***748***	***222***	***124***	***98***	***2284***	***1020***	***1264***
Auto	***213***	109	104	***1404***	716	688	***204***	114	90	***2101***	938	1163
Medium	***12***	6	6	***76***	39	37	***11***	6	5	***114***	51	63
Heavy Truck	***7***	4	3	***46***	23	22	***7***	4	3	***69***	31	38
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	LOCUST GROVE TO STAFFORD			STAFFORD TO EAGLE			EAST OF EAGLE ROAD		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***6100***	***2808***	***3292***	***6166***	***2817***	***3349***	***3167***	***1201***	***1966***
Auto		814	955		817	971	***2787***	1057	1730
Medium		66	77		66	78	***222***	84	138
Heavy Truck		37	44		38	45	***95***	36	59
Bus		9	11		9	11	***32***	12	20
Motorcycle		9	11		9	11	***32***	12	20

*****Volumes on US 20/26 by**

SEGMENT; CROSS ROADS NORTH OF 20/26	STAFFORD			EAGLE		
	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***255***	***104***	***151***	***4521***	***1965***	***2556***
Auto	***235***	96	139	3978	1729	2249
Medium	***13***	5	8	316	138	179
Heavy Truck	***8***	3	5	136	59	77
Bus	***0***	0	0	45	20	26
Motorcycle	***0***	0	0	45	20	26

SEGMENT; CROSS ROADS SOUTH OF 20/26	STAFFORD			EAGLE		
	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***0***			***3749***	***1722***	***2027***
Auto	***0***			3299	1515	1784
Medium	***0***			262	121	142
Heavy Truck	***0***			112	52	61
Bus	***0***			37	17	20
Motorcycle	***0***			37	17	20

SEGMENT; US 20/26	I-84 TO AVIATION			AVIATION TO SMEED			SMEED TO KCID			KCID TO WARD		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***3269***	***1928***	***1341***	***2228***	***1312***	***916***	***1927***	***1176***	***751***	***2404***	***1227***	***1177***
Auto	***2844***	1677	1167	***1938***	1141	797	***1676***	1023	653	***2091***	1067	1024
Medium	***229***	135	94	***156***	92	64	***135***	82	53	***168***	86	82
Heavy Truck	***131***	77	54	***89***	52	37	***77***	47	30	***96***	49	47
Bus	***33***	19	13	***22***	13	9	***19***	12	8	***24***	12	12
Motorcycle	***33***	19	13	***22***	13	9	***19***	12	8	***24***	12	12

SEGMENT; CROSS ROADS NORTH OF 20/26	AVIATION			SMEED			KCID			WARD		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***933***	***308***	***625***	***207***	***92***	***115***	***1130***	***440***	***690***	***239***	***115***	***124***
Auto	***858***	283	575	***190***	85	106	***1040***	405	635	***220***	106	114
Medium	***47***	15	31	***10***	5	6	***57***	22	35	***12***	6	6
Heavy Truck	***28***	9	19	***6***	3	3	***34***	13	21	***7***	3	4
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	AVIATION			SMEED			KCID			WARD		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***912***	***396***	***516***	***692***	***324***	***368***	***648***	***384***	***264***	***630***	***380***	***250***
Auto	***839***	364	475	***637***	298	339	***596***	353	243	***580***	350	230
Medium	***46***	20	26	***35***	16	18	***32***	19	13	***32***	19	13
Heavy Truck	***27***	12	15	***21***	10	11	***19***	12	8	***19***	11	8
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	WARD TO MIDDLETON			MIDDLETON TO MIDLAND			MIDLAND TO NORTHSIDE			NORTHSIDE TO FRANKLIN		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***2345***	***1122***	***1223***	***2655***	***1183***	***1472***	***2472***	***1057***	***1415***	***2115***	***957***	***1158***
Auto	***2040***	976	1064	***2310***	1029	1281	***2151***	920	1231	***1840***	833	1007
Medium	***164***	79	86	***186***	83	103	***173***	74	99	***148***	67	81
Heavy Truck	***94***	45	49	***106***	47	59	***99***	42	57	***85***	38	46
Bus	***23***	11	12	***27***	12	15	***25***	11	14	***21***	10	12
Motorcycle	***23***	11	12	***27***	12	15	***25***	11	14	***21***	10	12

SEGMENT; CROSS ROADS NORTH OF 20/26	MIDDLETON			MIDLAND			NORTHSIDE			FRANKLIN		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***908***	***335***	***573***	***129***	***41***	***88***	***78***	***26***	***52***	***94***	***52***	***42***
Auto	***835***	308	527	***119***	38	81	***72***	24	48	***86***	48	39
Medium	***45***	17	29	***6***	2	4	***4***	1	3	***5***	3	2
Heavy Truck	***27***	10	17	***4***	1	3	***2***	1	2	***3***	2	1
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	MIDDLETON			MIDLAND			NORTHSIDE			FRANKLIN		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***2215***	***1086***	***1129***	***133***	***83***	***50***	***759***	***285***	***474***	***803***	***350***	***453***
Auto	***2038***	999	1039	***122***	76	46	***698***	262	436	***739***	322	417
Medium	***111***	54	56	***7***	4	3	***38***	14	24	***40***	18	23
Heavy Truck	***66***	33	34	***4***	2	2	***23***	9	14	***24***	11	14
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	FRANKLIN TO 11TH			11TH TO CAN ADA			CAN ADA TO STAR			STAR TO BLACK CAT		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***2319***	***1114***	***1205***	***2471***	***1187***	***1284***	***2265***	***1122***	***1143***	***2652***	***1180***	***1472***
Auto	***2018***	969	1048	***2150***	1033	1117	***1971***	976	994	***2307***	1027	1281
Medium	***162***	78	84	***173***	83	90	***159***	79	80	***186***	83	103
Heavy Truck	***93***	45	48	***99***	47	51	***91***	45	46	***106***	47	59
Bus	***23***	11	12	***25***	12	13	***23***	11	11	***27***	12	15
Motorcycle	***23***	11	12	***25***	12	13	***23***	11	11	***27***	12	15

SEGMENT; CROSS ROADS NORTH OF 20/26	11TH			CAN ADA			STAR			BLACK CAT		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***62***	***31***	***31***	***104***	***36***	***68***	***2653***	***954***	***1699***	***94***	***47***	***47***
Auto	***57***	29	29	***96***	33	63	***2441***	878	1563	***86***	43	43
Medium	***3***	2	2	***5***	2	3	***133***	48	85	***5***	2	2
Heavy Truck	***2***	1	1	***3***	1	2	***80***	29	51	***3***	1	1
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	11TH			CAN ADA			STAR			BLACK CAT		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***193***	***102***	***91***	***934***	***421***	***513***	***3017***	***1311***	***1706***	***684***	***358***	***326***
Auto	***178***	94	84	***859***	387	472	***2776***	1206	1570	***629***	329	300
Medium	***10***	5	5	***47***	21	26	***151***	66	85	***34***	18	16
Heavy Truck	***6***	3	3	***28***	13	15	***91***	39	51	***21***	11	10
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	BLACK CAT TO TREE FARM			TREE FARM TO TEN MILE			TEN MILE TO LONG LAKE			LONG LAKE TO LINDER		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***2247***	***967***	***1280***	***2198***	***924***	***1274***	***2434***	***1040***	***1394***	***2352***	***1001***	***1351***
Auto	***1955***	841	1114	***1912***	804	1108	***2118***	905	1213	***2046***	871	1175
Medium	***157***	68	90	***154***	65	89	***170***	73	98	***165***	70	95
Heavy Truck	***90***	39	51	***88***	37	51	***97***	42	56	***94***	40	54
Bus	***22***	10	13	***22***	9	13	***24***	10	14	***24***	10	14
Motorcycle	***22***	10	13	***22***	9	13	***24***	10	14	***24***	10	14

SEGMENT; CROSS ROADS NORTH OF 20/26	TREE FARM			TEN MILE			LONG LAKE			LINDER		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***609***	***307***	***302***				***150***	***100***	***50***	***5455***	***2676***	***2779***
Auto	***560***	282	278				***138***	92	46	***5019***	2462	2557
Medium	***30***	15	15				***8***	5	3	***273***	134	139
Heavy Truck	***18***	9	9				***5***	3	2	***164***	80	83
Bus	***0***	0	0				***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0				***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	TREE FARM			TEN MILE			LONG LAKE			LINDER		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***7***	***2***	***5***	***1570***	***780***	***790***	***663***	***331***	***332***	***4081***	***2136***	***1945***
Auto	***6***	2	5	***1444***	718	727	***610***	305	305	***3755***	1965	1789
Medium	***0***	0	0	***79***	39	40	***33***	17	17	***204***	107	97
Heavy Truck	***0***	0	0	***47***	23	24	***20***	10	10	***122***	64	58
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	LINDER TO FOX RUN			FOX RUN TO MERIDIAN			MERIDIAN TO CASTLEBURY			CASTLEBERRY TO LOCUST GROVE		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***2789***	***1091***	***1698***	***2728***	***1037***	***1691***	***2459***	***903***	***1556***	***2496***	***892***	***1604***
Auto	***2426***	949	1477	***2373***	902	1471	***2139***	786	1354	***2172***	776	1395
Medium	***195***	76	119	***191***	73	118	***172***	63	109	***175***	62	112
Heavy Truck	***112***	44	68	***109***	41	68	***98***	36	62	***100***	36	64
Bus	***28***	11	17	***27***	10	17	***25***	9	16	***25***	9	16
Motorcycle	***28***	11	17	***27***	10	17	***25***	9	16	***25***	9	16

SEGMENT; CROSS ROADS NORTH OF 20/26	FOX RUN			MERIDIAN			CASTLEBURY			LOCUST GROVE		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***152***	***53***	***99***	***910***	***458***	***452***	***191***	***88***	***103***	***1154***	***728***	***426***
Auto	***140***	49	91	***837***	421	416	***176***	81	95	***1062***	670	392
Medium	***8***	3	5	***46***	23	23	***10***	4	5	***58***	36	21
Heavy Truck	***5***	2	3	***27***	14	14	***6***	3	3	***35***	22	13
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; CROSS ROADS SOUTH OF 20/26	FOX RUN			MERIDIAN			CASTLEBURY			LOCUST GROVE		
	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***181***	***93***	***88***	***1101***	***553***	***548***	***172***	***99***	***73***	***1609***	***720***	***889***
Auto	***167***	86	81	***1013***	509	504	***158***	91	67	***1480***	662	818
Medium	***9***	5	4	***55***	28	27	***9***	5	4	***80***	36	44
Heavy Truck	***5***	3	3	***33***	17	16	***5***	3	2	***48***	22	27
Bus	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0
Motorcycle	***0***	0	0	***0***	0	0	***0***	0	0	***0***	0	0

SEGMENT; US 20/26	LOCUST GROVE TO STAFFORD			STAFFORD TO EAGLE			EAST OF EAGLE ROAD		
	Total	Eastbound	Westbound	Total	Eastbound	Westbound	Total	Eastbound	Westbound
Total Hourly	***2425***	***1083***	***1342***	***2491***	***1092***	***1399***	***4076***	***1575***	***2501***
Auto	***2110***	942	1168	***2167***	950	1217	***3587***	1386	2201
Medium	***170***	76	94	***174***	76	98	***285***	110	175
Heavy Truck	***97***	43	54	***100***	44	56	***122***	47	75
Bus	***24***	11	13	***25***	11	14	***41***	16	25
Motorcycle	***24***	11	13	***25***	11	14	***41***	16	25

SEGMENT; CROSS ROADS NORTH OF 20/26	STAFFORD			EAGLE		
	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***255***	***104***	***151***	***5137***	***2170***	***2967***
Auto	***235***	96	139	4521	1910	2611
Medium	***13***	5	8	360	152	208
Heavy Truck	***8***	3	5	154	65	89
Bus	***0***	0	0	51	22	30
Motorcycle	***0***	0	0	51	22	30

SEGMENT; CROSS ROADS SOUTH OF 20/26	STAFFORD			EAGLE		
	Total	Southbound	Northbound	Total	Southbound	Northbound
Total Hourly	***0***			***3864***	***1872***	***1992***
Auto	***0***			3400	1647	1753
Medium	***0***			270	131	139
Heavy Truck	***0***			116	56	60
Bus	***0***			39	19	20
Motorcycle	***0***			39	19	20

APPENDIX B: REASONABLE AND FEASIBLE WORKSHEETS

Optional Non-Barrier Noise Abatement Checklist

Idaho Transportation Department

ITD 1057 (Rev. 05-11)
itd.idaho.gov

Key Number	Project Number	Project Name
07826	STP 3230 (106)	US 20/26 Corridor Preservation Study
Receptor Number(s)		
Commercial 5, 6, 108, 114 and 118 and a church: 120		

Feasibility		Yes	No
1.	Traffic management measures can be implemented which conform to the purpose of the project and achieve at least a 5 dBA reduction in sound levels at the majority of impacted receptors	☐	☒
2.	Alignment alteration can be implemented which conforms to design standards and achieves at least a 5 dBA reduction in sound levels at the majority of impacted receptors	☐	☒
3.	There is an Activity Category D land use n the project area and insulation can be provided which achieves a 5 dBA reduction in sound levels inside the structure	☐	☒

If the response to all of the above is No, the measures are not feasible. Do not continue with the checklist.

If the response to any of the above is Yes, the measure is feasible. Consider the following.

Reasonableness		Yes	No
1.	The cost of implementation meets the cost per benefitted residence criterion	☐	☐
2.	The benefitted residents endorse the measure(s)	☐	☐
3.	The measure achieves the design goal	☐	☐

Note - If the Noise Analyst is aware of considerations such as imminent land use changes, indirect impacts, noise sources other than those modeled, etc., note the considerations below.

Optional Non-Barrier Noise Abatement Checklist

Idaho Transportation Department

ITD 1057 (Rev. 05-11)
itd.idaho.gov

Key Number	Project Number	Project Name
07826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Receptor Number(s)
Residential 4, 11, 12, 21, 26-27, 31-33, 37, 41-42, 44-45, 47, 51, 53-57, 59, 60, 62-63, 65-68, 70-72, 74, 77-80, 83, 84, 87, 90, 98, 112, 121,122,133,135 and 152

Feasibility		Yes	No
1.	Traffic management measures can be implemented which conform to the purpose of the project and achieve at least a 5 dBA reduction in sound levels at the majority of impacted receptors	☐	☒
2.	Alignment alteration can be implemented which conforms to design standards and achieves at least a 5 dBA reduction in sound levels at the majority of impacted receptors	☐	☒
3.	There is an Activity Category D land use n the project area and insulation can be provided which achieves a 5 dBA reduction in sound levels inside the structure	☐	☒

If the response to <u>all</u> of the above is No, the measures are not feasible. Do not continue with the checklist.

If the response to <u>any</u> of the above is Yes, the measure is feasible. Consider the following.

Reasonableness		Yes	No
1.	The cost of implementation meets the cost per benefitted residence criterion	☐	☐
2.	The benefitted residents endorse the measure(s)	☐	☐
3.	The measure achieves the design goal	☐	☐

<u>Note</u> - If the Noise Analyst is aware of considerations such as imminent land use changes, indirect impacts, noise sources other than those modeled, etc., note the considerations below.

Optional Non-Barrier Noise Abatement Checklist

Idaho Transportation Department

ITD 1057 (Rev. 05-11)
itd.idaho.gov

Key Number	Project Number	Project Name
07826	STP 3230 (106)	US 20/26 Corridor Preservation Study
Receptor Number(s)		
101- Spurwing Golf Course		

Feasibility		Yes	No
1.	Traffic management measures can be implemented which conform to the purpose of the project and achieve at least a 5 dBA reduction in sound levels at the majority of impacted receptors	☐	☒
2.	Alignment alteration can be implemented which conforms to design standards and achieves at least a 5 dBA reduction in sound levels at the majority of impacted receptors	☐	☒
3.	There is an Activity Category D land use n the project area and insulation can be provided which achieves a 5 dBA reduction in sound levels inside the structure	☐	☒

If the response to all of the above is No, the measures are not feasible. Do not continue with the checklist.

If the response to any of the above is Yes, the measure is feasible. Consider the following.

Reasonableness		Yes	No
1.	The cost of implementation meets the cost per benefitted residence criterion	☐	☐
2.	The benefitted residents endorse the measure(s)	☐	☐
3.	The measure achieves the design goal	☐	☐

Note - If the Noise Analyst is aware of considerations such as imminent land use changes, indirect impacts, noise sources other than those modeled, etc., note the considerations below.

Optional Non-Barrier Noise Abatement Checklist

Idaho Transportation Department

ITD 1057 (Rev. 05-11)
itd.idaho.gov

Key Number	Project Number	Project Name
07826	STP 3230 (106)	US 20/26 Corridor Preservation Study
Receptor Number(s)		
136- Bristol Hieghts Fire Wall		

Feasibility	Yes	No
1. Traffic management measures can be implemented which conform to the purpose of the project and achieve at least a 5 dBA reduction in sound levels at the majority of impacted receptors	☐	☒
2. Alignment alteration can be implemented which conforms to design standards and achieves at least a 5 dBA reduction in sound levels at the majority of impacted receptors	☐	☒
3. There is an Activity Category D land use n the project area and insulation can be provided which achieves a 5 dBA reduction in sound levels inside the structure	☐	☒

If the response to all of the above is No, the measures are not feasible. Do not continue with the checklist.

If the response to any of the above is Yes, the measure is feasible. Consider the following.

Reasonableness	Yes	No
1. The cost of implementation meets the cost per benefitted residence criterion	☐	☐
2. The benefitted residents endorse the measure(s)	☐	☐
3. The measure achieves the design goal	☐	☐

Note - If the Noise Analyst is aware of considerations such as imminent land use changes, indirect impacts, noise sources other than those modeled, etc., note the considerations below.

Fire Access created a breaks in the wall where a feasible wall could not be constructed.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
10 Lakey's #2 Mobile Home Park	65.7 - 68.6

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		6
Estimated barrier cost	$	142,680
Closest benefitted receptor to centerline insertion loss	dBA	7.7
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☑ 25-75%	☐ 10-24%	☐ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☑ >10dBA	☐ 5-9dBA	☐ 3-4dBA	☐ <3dBA
5. Changes between existing and build (design year) conditions	☑ >10dBA	☐ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☑ Moderate	☐ Minor	☐ None
7. Project generated traffic noise is the dominant noise source	☐ Primary	☐ Major	☑ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 9000

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $33,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
16, 20 Ward West	67.5 - 66.3

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		36
Estimated barrier cost	$	931,567
Closest benefitted receptor to centerline insertion loss	dBA	7
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☑ >10dBA	☐ 5-9dBA	☐ 3-4dBA	☐ <3dBA
5. Changes between existing and build (design year) conditions	☑ >10dBA	☐ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☐ Moderate	☐ Minor	☑ None
7. Project generated traffic noise is the dominant noise source	☐ Primary	☐ Major	☑ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 0

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $24,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
25 Ward East	61.4 -68.5

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		14
Estimated barrier cost	$	413,888
Closest benefitted receptor to centerline insertion loss	dBA	8
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☑ 5-9dBA	☐ 3-4dBA	☐ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☑ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☐ Moderate	☐ Minor	☑ None
7. Project generated traffic noise is the dominant noise source	☐ Primary	☐ Major	☑ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 0

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $24,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
99, 100, 103 Silverleaf	67.3-71.0

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		14
Estimated barrier cost	$	328,802
Closest benefitted receptor to centerline insertion loss	dBA	7
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☑ 5-9dBA	☐ 3-4dBA	☐ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☑ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☑ Moderate	☐ Minor	☐ None
7. Project generated traffic noise is the dominant noise source	☑ Primary	☐ Major	☐ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 6000

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $30,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
104, 105 Challenger School	69.5 - 68.6

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		4
Estimated barrier cost	$	441,000
Closest benefitted receptor to centerline insertion loss	dBA	5
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
3. Type of development*	☐ Dwelling	☑ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☑ 5-9dBA	☐ 3-4dBA	☐ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☑ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☑ Moderate	☐ Minor	☐ None
7. Project generated traffic noise is the dominant noise source	☑ Primary	☐ Major	☐ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 4000

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $28,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
125 Westborough	64.7 - 69.5

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		28
Estimated barrier cost	$	487,084
Closest benefitted receptor to centerline insertion loss	dBA	6.9
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☐ 5-9dBA	☐ 3-4dBA	☑ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☑ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☐ Moderate	☐ Minor	☑ None
7. Project generated traffic noise is the dominant noise source	☑ Primary	☐ Major	☐ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 0

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $24,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
137,138,141 Bristol Heights West	68.1 - 73.9

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		14
Estimated barrier cost	$	268,192
Closest benefitted receptor to centerline insertion loss	dBA	9
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☐ 5-9dBA	☑ 3-4dBA	☐ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☐ 4-9dBA	☑ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☐ Moderate	☐ Minor	☑ None
7. Project generated traffic noise is the dominant noise source	☑ Primary	☐ Major	☐ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 0

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $24,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study
Impacted Receptor Number		**Design Year "Build" dBA Level(s) Without Barrier**
R141a Bristol Heights Central		73.9 - 67.2

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		5
Estimated barrier cost	$	112,230
Closest benefitted receptor to centerline insertion loss	dBA	11
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☐ 5-9dBA	☐ 3-4dBA	☑ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☑ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☐ Moderate	☐ Minor	☑ None
7. Project generated traffic noise is the dominant noise source	☑ Primary	☐ Major	☐ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 0

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $24,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
142, 144 Bristol Heights East	72.2 -69.9

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		10
Estimated barrier cost	$	154,773
Closest benefitted receptor to centerline insertion loss	dBA	9
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☐ 5-9dBA	☐ 3-4dBA	☑ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☑ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☐ Moderate	☐ Minor	☑ None
7. Project generated traffic noise is the dominant noise source	☑ Primary	☐ Major	☐ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 0

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $24,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Project
Impacted Receptor Number		Design Year "Build" dBA Level(s) Without Barrier
139, 140, 143, 145 Banbury Central		69.6 - 70.5

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		19
Estimated barrier cost	$	500,290
Closest benefitted receptor to centerline insertion loss	dBA	9
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☐ 5-9dBA	☐ 3-4dBA	☑ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☑ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☐ Moderate	☐ Minor	☑ None
7. Project generated traffic noise is the dominant noise source	☑ Primary	☐ Major	☐ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 0

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $24,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
147 "Banbury East"	73.8

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		2
Estimated barrier cost	$	108,750
Closest benefitted receptor to centerline insertion loss	dBA	7
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☑ >75%	☐ 25-75%	☐ 10-24%	☐ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☐ 5-9dBA	☐ 3-4dBA	☑ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☑ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☐ Moderate	☐ Minor	☑ None
7. Project generated traffic noise is the dominant noise source	☐ Primary	☑ Major	☐ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 0

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $24,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

Noise Barrier Abatement Checklist

Idaho Transportation Department

ITD 1055 (Rev. 09-11)
itd.idaho.gov

Key Number	Project Number	Project Name
7826	STP 3230 (106)	US 20/26 Corridor Preservation Study

Impacted Receptor Number	Design Year "Build" dBA Level(s) Without Barrier
163, 164 Bristol Heights Eagle Road	69.2 -71.1

Barrier Feasibility

	Yes	No
1. Can the barrier achieve at least a 5 dBA sound level reduction at the majority of impacted receptors without limiting property or neighborhood access?	☑	☐
2. Does the barrier conform to project standards regarding traffic safety, maintenance, and drainage concerns, considering that these issues can often be resolved through use of good design practices?	☑	☐
3. Can an effective barrier be constructed considering the existing site characteristics and topography, and without reconfiguring the site or neighborhood (not including minor access modifications)?	☑	☐

If No to <u>any</u> of the above, the barrier is not feasible - do not continue with this checklist.

If Yes to <u>all</u> of the above, the barrier is feasible - complete the following.

Factors Required for Barrier Reasonability Decisions

Number of benefitted receptors		7
Estimated barrier cost	$	139,351
Closest benefitted receptor to centerline insertion loss	dBA	8.1
Percentage of benefitted property owners who want a traffic noise barrier	%	100
Percentage of benefitted renters who want a traffic noise barrier	%	100

Optional Barrier Reasonability Factors

No Single optional factor can be used to determine reasonableness. The assessment results of the 7 factors below are used to increase the cost per benefitted receptor.

	Yes		No	
	High	Low	Low	High
1. Development pre-dated highway construction	☐ >75%	☐ 25-75%	☐ 10-24%	☑ <10%
2. Development in place before 1976	☑ >75%	☐ 25-75%	☐ 10-24%	☐ <10%
3. Type of development*	☑ Dwelling	☐ School	☐ Office	☐ Retail
4. Exposure to higher absolute traffic noise levels	☐ >10dBA	☐ 5-9dBA	☐ 3-4dBA	☑ <3dBA
5. Changes between existing and build (design year) conditions	☐ >10dBA	☑ 4-9dBA	☐ 0-3dBA	☐ <0dBA
6. Effort of local officals to use noise compatible development	☐ Major	☐ Moderate	☐ Minor	☑ None
7. Project generated traffic noise is the dominant noise source	☐ Primary	☑ Major	☐ Secondary	☐ Minor

Adjusted Value [(THY+TLY-TLN-THN)1000] 0

(THY - Total High Yes; TLY - Total Low Yes; TLN - Total Low No; THN - Total High No)

Adjusted Cost Per Benefitted Receptor (Adjusted Value + $24,250) $24,250.00

* **Dwelling** - includes residences, condos, apartments, areas of frequent outdoor use associated with quiet and "Cat. A" uses
School - includes libraries, churches, hospitals, and outdoor areas associated with infrequent or noisier activities
Office - includes low volume commercial uses, and motels/hotels with outdoor accommodations for guests
Retail - includes parking lots, industrial uses, shopping centers, convenience stores, highway businesses, etc.

APPENDIX C: NOISE MODEL INPUT AND OUTPUT FILES

RESULTS: SOUND LEVELS

20_26 Corridor Study

AXIOM POINTS
Kari Frederick

8 July 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 1
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
147	1	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
145	2	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
143	3	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
140	4	1	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
139	5	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
134	6	1	0.0	57.8	66	57.8	10	----	57.8	0.0	8	-8.0
127	7	1	0.0	58.9	66	58.9	10	----	58.9	0.0	8	-8.0
146	8	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
144	9	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
142	10	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
141	11	1	0.0	56.7	66	56.7	10	----	56.7	0.0	8	-8.0
138	12	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
137	13	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
136	14	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
135	15	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
133	16	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
131	17	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
115	18	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
126	19	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
121	21	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
116	23	1	0.0	52.5	66	52.5	10	----	52.5	0.0	8	-8.0
128	24	1	0.0	54.6	66	54.6	10	----	54.6	0.0	8	-8.0
125	26	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0

117	27	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
114	28	1	0.0	58.5	66	58.5	10	----	58.5	0.0	8	-8.0
113	29	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
105	34	1	0.0	63.7	66	63.7	10	----	63.7	0.0	8	-8.0
107	35	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
98	36	1	0.0	61.9	66	61.9	10	----	61.9	0.0	8	-8.0
104	37	1	0.0	54.7	66	54.7	10	----	54.7	0.0	8	-8.0
103	38	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
99	39	1	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
97	40	1	0.0	52.9	66	52.9	10	----	52.9	0.0	8	-8.0
91	42	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
89	43	1	0.0	56.9	66	56.9	10	----	56.9	0.0	8	-8.0
86	44	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
148	45	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
132	47	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
130	48	1	0.0	56.9	66	56.9	10	----	56.9	0.0	8	-8.0
129	49	1	0.0	52.0	66	52.0	10	----	52.0	0.0	8	-8.0
124	51	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
122	52	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0
120	53	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
119	54	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
118	55	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
106	56	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
100	57	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
101	59	1	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
102	61	1	0.0	60.9	66	60.9	10	----	60.9	0.0	8	-8.0
96	63	1	0.0	59.4	66	59.4	10	----	59.4	0.0	8	-8.0
95	67	1	0.0	55.1	66	55.1	10	----	55.1	0.0	8	-8.0
94	68	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
93	69	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
92	70	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
88	71	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
87	72	1	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
108	73	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
109	74	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
111	75	1	0.0	61.7	66	61.7	10	----	61.7	0.0	8	-8.0
110	76	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
112	77	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0
90	79	1	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0
84	81	1	0.0	60.9	66	60.9	10	----	60.9	0.0	8	-8.0
85	83	1	0.0	70.1	66	70.1	10	Snd Lvl	70.1	0.0	8	-8.0

RESULTS: SOUND LEVELS

20_26 Corridor Study

123	85	1	0.0	64.2	66	64.2	10	---	64.2	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	65	0.0	0.0	0.0
All Impacted	9	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

C5

AXIOM POINTS 10 July 2015
Kari Frederick TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 1

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
20_26 Westbnd- Eagle to Locust Grov	12.0	point1	1	2,465,024.2	728,238.2	2,620.00				Average	
		point2	2	2,464,024.5	728,219.8	2,618.00				Average	
		point3	3	2,463,024.5	728,217.4	2,616.00				Average	
		point4	4	2,462,024.5	728,217.5	2,612.00				Average	
		point5	5	2,461,024.5	728,228.9	2,610.00				Average	
		point6	6	2,460,024.5	728,237.8	2,606.00				Average	
		point190	190	2,459,881.8	728,238.5	2,605.71					
20_26 Eastbound- Star Rd. to McDermott	12.0	point135	135	2,432,574.5	728,465.1	2,527.00				Average	
		point151	151	2,432,896.0	728,461.7	2,527.89				Average	
		point152	152	2,433,217.5	728,458.2	2,528.79				Average	
		point153	153	2,433,538.8	728,454.9	2,529.68					
Eagle Rd SB 1	12.0	point56	56	2,465,058.5	729,600.7	2,620.00				Average	
		point57	57	2,465,040.2	728,600.9	2,620.00				Average	
		point58	58	2,465,049.8	727,601.1	2,618.00					
Eagle Rd SB 2	12.0	point59	59	2,465,072.8	729,594.7	2,620.00				Average	
		point60	60	2,465,054.5	728,594.9	2,620.00				Average	
		point61	61	2,465,063.8	727,595.3	2,620.00					
Eagle RD NB 1	12.0	point62	62	2,465,145.2	726,907.5	2,620.00				Average	
		point63	63	2,465,095.5	727,901.9	2,620.00				Average	
		point64	64	2,465,100.2	728,901.9	2,620.00					
Eagle Rd NB 2	12.0	point65	65	2,465,122.2	726,908.4	2,618.00				Average	
		point66	66	2,465,080.0	727,907.4	2,620.00				Average	
		point67	67	2,465,089.0	728,907.4	2,618.00					
Locust Grove NB_north of 20_26	12.0	point69	69	2,459,782.2	728,243.0	2,602.00				Average	
		point68	68	2,459,780.0	728,903.9	2,604.00					

INPUT: ROADWAYS **20_26 Corridor Study**

Locust Grove NB-south of 20_26	12.0	point72	72	2,459,762.0	728,212.0	2,602.00				Average
		point71	71	2,459,761.2	728,190.0	2,604.00				Average
		point70	70	2,459,755.0	727,304.7	2,604.00				
Meridian SB north of 20_26	12.0	point74	74	2,454,720.5	729,221.2	2,588.00				Average
		point73	73	2,454,711.5	728,257.0	2,588.00				
Meridian NB-south of 20_26	12.0	point75	75	2,454,722.2	727,119.0	2,588.00				Average
		point76	76	2,454,736.8	728,198.0	2,588.00				Average
		point77	77	2,454,735.0	728,225.0	2,588.00				
Linder NB-south of 20_26	12.0	point78	78	2,449,393.8	727,344.2	2,574.00				Average
		point80	80	2,449,378.5	728,265.0	2,574.00				
Linder SB- north of 20_26	12.0	point83	83	2,449,374.0	729,291.5	2,574.00				Average
		point114	114	2,449,374.0	728,804.7	2,574.00				Average
		point81	81	2,449,374.0	728,317.9	2,574.00				
Ten Mile NB	12.0	point84	84	2,444,111.0	728,302.5	2,558.00				Average
		point85	85	2,444,126.0	720,517.1	2,558.00				
Ten Mile SB	12.0	point87	87	2,444,132.0	720,517.1	2,558.00				Average
		point86	86	2,444,117.5	728,302.5	2,558.00				
Blackcat SB-south of 20/26	12.0	point88	88	2,438,814.2	720,126.4	2,542.00				Average
		point102	102	2,438,814.2	728,234.2	2,542.00				Average
		point92	92	2,438,814.2	728,342.0	2,542.00				
Blackcat NB-north of 20_26	12.0	point91	91	2,438,826.0	728,425.0	2,542.00				Average
		point90	90	2,438,826.0	728,557.0	2,542.00				
Blackcat SB-north of 20_26	12.0	point89	89	2,438,814.2	728,557.5	2,542.00				Average
		point96	96	2,438,814.2	728,425.0	2,542.00				
Blackcat NB-south of 20_26	12.0	point103	103	2,438,826.0	720,126.4	2,542.00				Average
		point104	104	2,438,826.0	728,234.2	2,542.00				Average
		point108	108	2,438,826.0	728,345.0	2,542.00				
Linder NB-north of 20_26	12.0	point111	111	2,449,378.5	728,317.9	2,574.00				Average
		point112	112	2,449,386.0	728,804.7	2,574.00				Average
		point79	79	2,449,393.8	729,291.5	2,574.00				
Linder SB-south of 20_26	12.0	point115	115	2,449,374.0	728,265.0	2,574.00				Average
		point116	116	2,449,374.0	727,344.2	2,574.00				
Meridian NB- north of 20_26	12.0	point117	117	2,454,722.2	728,257.0	2,588.00				Average
		point118	118	2,454,736.8	729,221.2	2,588.00				
Meridian SB- south of 20_26	12.0	point121	121	2,454,720.0	728,225.0	2,588.00				Average
		point120	120	2,454,720.5	728,198.0	2,588.00				Average
		point119	119	2,454,711.5	727,119.0	2,588.00				
Locust Grove SB-north of 20_26	12.0	point122	122	2,459,767.8	728,903.9	2,604.00				Average

INPUT: ROADWAYS

20_26 Corridor Study

		point123	123	2,459,761.2	728,243.0	2,602.00				
Locust Grove SB-south of 20_26	12.0	point124	124	2,459,767.8	727,304.7	2,604.00			Average	
		point125	125	2,459,782.2	728,190.0	2,604.00			Average	
		point126	126	2,459,783.0	728,212.0	2,602.00				
McDermott NB- south of 20-26	12.0	point136	136	2,433,578.8	727,319.2	2,530.00			Average	
		point137	137	2,433,610.2	728,436.0	2,530.00				
McDermott SB-southof 20_26	12.0	point139	139	2,433,598.0	728,436.0	2,530.00			Average	
		point138	138	2,433,566.0	727,319.2	2,530.00				
20_26 Eastbound-Mcdermott to Blk Cat-2	12.0	point160	160	2,438,635.5	728,400.6	2,543.84			Average	
		point159	159	2,438,819.0	728,398.6	2,544.35				
20_26 Eastbound-McDermott to Blk Cat 1	12.0	point161	161	2,433,538.8	728,454.9	2,529.68			Average	
		point145	145	2,433,860.2	728,451.4	2,530.57			Average	
		point146	146	2,435,145.8	728,437.7	2,534.14			Average	
		point147	147	2,436,431.5	728,424.0	2,537.71			Average	
		point148	148	2,437,717.0	728,410.3	2,541.29			Average	
		point154	154	2,437,900.8	728,408.4	2,541.80			Average	
		point155	155	2,438,084.2	728,406.4	2,542.31			Average	
		point156	156	2,438,268.0	728,404.4	2,542.82			Average	
		point157	157	2,438,451.8	728,402.5	2,543.33			Average	
		point158	158	2,438,635.5	728,400.6	2,543.84				
20_26 Westbound-Black Cat to Tree Far	12.0	point168	168	2,438,883.0	728,416.6	2,546.29			Average	
		point173	173	2,438,811.5	728,417.1	2,545.93			Average	
		point163	163	2,438,740.0	728,417.6	2,545.57			Average	
		point164	164	2,438,597.2	728,418.6	2,544.86			Average	
		point165	165	2,438,454.5	728,419.7	2,544.14			Average	
		point166	166	2,438,311.8	728,420.8	2,543.43			Average	
		point167	167	2,438,168.8	728,421.8	2,542.71			Average	
		point130	130	2,438,026.0	728,422.8	2,542.00			Average	
		point131	131	2,437,026.0	728,433.5	2,540.00			Average	
		point27	27	2,436,026.0	728,441.7	2,536.00			Average	
		point140	140	2,434,026.0	728,463.4	2,532.00			Average	
		point142	142	2,433,776.0	728,466.1	2,531.50				
20_26 Westbound-Star Rd to McDermott	12.0	point169	169	2,433,776.0	728,466.1	2,531.50			Average	
		point143	143	2,433,526.0	728,468.9	2,531.00			Average	
		point144	144	2,433,276.0	728,471.6	2,530.50			Average	
		point141	141	2,433,026.0	728,474.3	2,530.00			Average	
		point28	28	2,432,026.2	728,485.2	2,528.00				
20_26 Eastbnd- Black Cat to Ten Mile	0.0	point171	171	2,438,819.0	728,398.6	2,544.35			Average	

		point170	170	2,438,911.0	728,397.6	2,544.60			Average
		point149	149	2,439,002.8	728,396.6	2,544.86			Average
		point132	132	2,439,574.0	728,391.0	2,542.00			Average
		point30	30	2,440,574.0	728,380.8	2,547.00			Average
		point31	31	2,441,574.0	728,369.2	2,552.00			Average
		point32	32	2,442,573.8	728,354.9	2,558.00			Average
		point203	203	2,443,073.5	728,348.2	2,559.00			
20_26 Westbound-Linder to Ten Mile	12.0	point174	174	2,450,025.0	728,293.7	2,580.00			Average
		point17	17	2,449,025.0	728,300.0	2,578.00			Average
		point18	18	2,448,025.0	728,304.4	2,574.00			Average
		point19	19	2,447,025.0	728,310.4	2,572.00			Average
		point20	20	2,446,025.0	728,325.8	2,570.00			Average
		point21	21	2,445,025.2	728,334.4	2,567.00			Average
		point22	22	2,444,025.2	728,350.4	2,564.00			Average
		point201	201	2,443,525.5	728,356.1	2,562.00			
20_26 Eastbnd-Linder to Meridian	12.0	point175	175	2,448,573.0	728,285.4	2,574.00			Average
		point39	39	2,449,573.0	728,273.1	2,576.00			Average
		point40	40	2,450,573.0	728,263.1	2,578.00			Average
		point41	41	2,451,573.0	728,253.2	2,580.00			Average
		point42	42	2,452,572.8	728,244.6	2,584.00			Average
		point43	43	2,453,572.8	728,237.0	2,587.00			Average
		point44	44	2,454,572.8	728,229.4	2,588.00			Average
		point183	183	2,454,715.5	728,229.1	2,589.14			
20_26 Westbound-Meridian to Linder	12.0	point182	182	2,454,739.0	728,254.1	2,593.71			Average
		point178	178	2,454,596.2	728,255.0	2,592.57			Average
		point179	179	2,454,453.2	728,256.0	2,591.43			Average
		point180	180	2,454,310.5	728,256.9	2,590.29			Average
		point181	181	2,454,167.5	728,257.9	2,589.14			Average
		point12	12	2,454,024.8	728,258.8	2,588.00			Average
		point13	13	2,453,024.8	728,264.6	2,587.00			Average
		point14	14	2,452,024.8	728,272.2	2,586.00			Average
		point15	15	2,451,024.8	728,281.5	2,583.00			Average
		point16	16	2,450,025.0	728,293.7	2,580.00			
20_26 Eastbnd-Meridian to Locust Grove	12.0	point189	189	2,454,715.5	728,229.1	2,589.14			Average
		point184	184	2,454,858.5	728,228.8	2,590.29			Average
		point185	185	2,455,001.2	728,228.6	2,591.43			Average
		point186	186	2,455,144.2	728,228.3	2,592.57			Average
		point187	187	2,455,287.0	728,228.1	2,593.71			Average

		point188	188	2,455,430.0	728,227.8	2,594.86				Average
		point45	45	2,455,572.8	728,227.5	2,596.00				Average
		point46	46	2,456,572.8	728,229.7	2,598.00				Average
		point47	47	2,457,572.5	728,223.5	2,602.00				Average
		point48	48	2,458,572.5	728,224.1	2,604.00				Average
		point49	49	2,459,572.5	728,219.4	2,610.00				
20_26 Westbnd-locust Grove to Meridian	12.0	point196	196	2,459,881.8	728,238.5	2,605.71				Average
		point191	191	2,459,738.8	728,239.1	2,605.43				Average
		point192	192	2,459,596.0	728,239.8	2,605.14				Average
		point193	193	2,459,453.0	728,240.5	2,604.86				Average
		point194	194	2,459,310.2	728,241.2	2,604.57				Average
		point195	195	2,459,167.2	728,241.8	2,604.29				Average
		point7	7	2,459,024.5	728,242.5	2,604.00				Average
		point8	8	2,458,024.5	728,243.4	2,604.00				Average
		point9	9	2,457,024.8	728,246.8	2,604.00				Average
		point10	10	2,456,024.8	728,249.5	2,598.00				Average
		point11	11	2,455,024.8	728,252.2	2,596.00				Average
		point176	176	2,454,882.0	728,253.1	2,594.86				Average
		point177	177	2,454,739.0	728,254.1	2,593.71				
20_26 Eastbound-Locust Grove to Eagle	12.0	point200	200	2,459,572.5	728,219.4	2,610.00				Average
		point197	197	2,459,822.5	728,216.7	2,611.50				Average
		point198	198	2,460,072.5	728,214.0	2,613.00				Average
		point199	199	2,460,322.5	728,211.3	2,614.50				Average
		point50	50	2,460,572.5	728,208.6	2,616.00				Average
		point51	51	2,461,572.2	728,198.9	2,618.00				Average
		point52	52	2,462,572.2	728,191.8	2,620.00				Average
		point54	54	2,465,024.2	728,226.0	2,622.00				
20_26 Westbound-Ten Mile to Black Cat	12.0	point202	202	2,443,525.5	728,356.1	2,562.00				Average
		point23	23	2,443,025.5	728,361.9	2,560.00				Average
		point24	24	2,442,025.5	728,374.4	2,558.00				Average
		point25	25	2,441,025.5	728,387.6	2,555.00				Average
		point128	128	2,440,025.8	728,399.1	2,552.00				Average
		point127	127	2,439,025.8	728,415.5	2,547.00				Average
		point162	162	2,438,883.0	728,416.6	2,546.29				
20_26 Eastbnd- Ten Mile to Linder	12.0	point204	204	2,443,073.5	728,348.2	2,559.00				Average
		point33	33	2,443,573.5	728,341.7	2,560.00				Average
		point34	34	2,444,573.5	728,324.9	2,565.00				Average
		point35	35	2,445,573.2	728,313.0	2,568.00				Average

INPUT: ROADWAYS

20_26 Corridor Study

		point36	36	2,446,573.0	728,298.6	2,570.00		Average
		point37	37	2,447,573.0	728,293.3	2,572.00		Average
		point38	38	2,448,573.0	728,285.4	2,574.00		

INPUT: BARRIERS

20_26 Corridor Study

AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 1

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	#Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft ft	$/ft			ft	ft	ft	ft	ft				
Banbury East	W	6.00	99.99	0.00				0.00	point1	1	2,465,001.2	728,883.4	2,620.00	6.00	0.00	0	0		
									point2	2	2,465,004.2	728,683.4	2,620.00	6.00	0.00	0	0		
									point3	3	2,465,001.5	728,483.5	2,620.00	6.00	0.00	0	0		
									point4	4	2,464,993.8	728,284.3	2,620.00	6.00	0.00	0	0		
									point5	5	2,464,795.2	728,270.2	2,620.00	6.00	0.00	0	0		
									point6	6	2,464,595.2	728,272.0	2,620.00	6.00					
Banbury Middle	W	0.00	99.99	0.00				0.00	point7	7	2,464,395.2	728,276.7	2,620.00	6.00	0.00	0	0		
									point8	8	2,464,195.2	728,280.0	2,620.00	6.00	0.00	0	0		
									point9	9	2,463,995.5	728,273.8	2,620.00	6.00	0.00	0	0		
									point10	10	2,463,795.5	728,276.3	2,620.00	6.00	0.00	0	0		
									point11	11	2,463,595.5	728,280.2	2,618.00	6.00	0.00	0	0		
									point12	12	2,463,395.5	728,283.9	2,618.00	6.00	0.00	0	0		
									point13	13	2,463,195.5	728,279.2	2,618.00	6.00	0.00	0	0		
									point14	14	2,462,995.5	728,277.3	2,618.00	6.00	0.00	0	0		
									point15	15	2,462,795.5	728,277.9	2,618.00	6.00	0.00	0	0		
									point16	16	2,462,415.5	728,280.4	2,618.00	6.00					
Banbury West	W	0.00	99.99	0.00				0.00	point17	17	2,462,315.8	728,288.5	2,618.00	6.00	0.00	0	0		
									point18	18	2,461,995.8	728,289.0	2,618.00	6.00	0.00	0	0		
									point19	19	2,461,795.8	728,289.4	2,618.00	6.00	0.00	0	0		
									point20	20	2,461,595.8	728,289.8	2,618.00	6.00	0.00	0	0		
									point21	21	2,461,395.8	728,289.8	2,618.00	6.00	0.00	0	0		
									point22	22	2,461,195.8	728,290.4	2,618.00	6.00	0.00	0	0		
									point23	23	2,460,995.8	728,292.4	2,618.00	6.00	0.00	0	0		
									point24	24	2,460,796.0	728,296.3	2,618.00	6.00	0.00	0	0		
									point25	25	2,460,596.0	728,300.8	2,618.00	6.00	0.00	0	0		
									point155	155	2,460,396.0	728,302.1	2,618.00	6.00	0.00	0	0		
									point154	154	2,460,196.0	728,303.5	2,618.00	6.00	0.00	0	0		
									point26	26	2,459,841.0	728,309.0	2,618.00	6.00	0.00	0	0		
									point27	27	2,459,803.0	728,523.0	2,618.00	6.00					
Castleberry	W	0.00	99.99	0.00				0.00	point53	53	2,459,596.0	728,307.5	2,606.00	6.00	0.00	0	0		
									point54	54	2,459,396.0	728,308.8	2,606.00	6.00	0.00	0	0		
									point55	55	2,459,196.0	728,307.8	2,606.00	6.00	0.00	0	0		
									point56	56	2,458,996.0	728,305.1	2,606.00	6.00	0.00	0	0		
									point57	57	2,458,796.0	728,302.3	2,606.00	6.00	0.00	0	0		
									point58	58	2,458,596.0	728,303.0	2,606.00	6.00	0.00	0	0		

								point59	59	2,458,396.0	728,303.8	2,606.00	6.00	0.00	0	0
								point60	60	2,458,196.0	728,304.6	2,606.00	6.00	0.00	0	0
								point61	61	2,457,996.0	728,305.4	2,606.00	6.00	0.00	0	0
								point62	62	2,457,796.0	728,306.3	2,604.00	6.00	0.00	0	0
								point63	63	2,457,596.0	728,307.1	2,604.00	6.00	0.00	0	0
								point64	64	2,457,396.0	728,306.9	2,604.00	6.00	0.00	0	0
								point65	65	2,457,210.0	728,304.6	2,604.00	6.00			
Bristol Heights	W	0.00	99.99	0.00			0.00	point77	77	2,464,360.5	728,132.4	2,618.00	6.00	0.00	0	0
								point78	78	2,464,216.5	728,133.0	2,618.00	6.00	0.00	0	0
								point79	79	2,464,016.5	728,133.6	2,618.00	6.00	0.00	0	0
								point80	80	2,463,816.5	728,134.3	2,618.00	6.00	0.00	0	0
								point81	81	2,463,616.5	728,132.8	2,618.00	6.00	0.00	0	0
								point82	82	2,463,416.5	728,131.2	2,618.00	6.00	0.00	0	0
								point83	83	2,463,366.5	728,130.8	2,618.00	6.00	0.00	0	0
								point84	84	2,463,316.5	728,130.4	2,618.00	6.00	0.00	0	0
								point85	85	2,463,316.5	727,646.0	2,618.00	4.00			
Paramount	W	0.00	99.99	0.00			0.00	point86	86	2,454,681.0	727,483.5	2,598.00	10.00	0.00	0	0
								point87	87	2,454,680.5	727,683.5	2,598.00	10.00	0.00	0	0
								point88	88	2,454,679.8	727,883.5	2,598.00	10.00	0.00	0	0
								point89	89	2,454,679.2	728,083.5	2,598.00	10.00	0.00	0	0
								point90	90	2,454,572.8	728,181.7	2,598.00	10.00	0.00	0	0
								point91	91	2,454,372.8	728,182.2	2,598.00	10.00	0.00	0	0
								point92	92	2,454,172.8	728,185.7	2,598.00	10.00	0.00	0	0
								point93	93	2,453,973.0	728,188.3	2,598.00	10.00	0.00	0	0
								point94	94	2,453,773.0	728,189.4	2,598.00	10.00	0.00	0	0
								point95	95	2,453,573.0	728,189.4	2,598.00	10.00	0.00	0	0
								point96	96	2,453,373.0	728,189.4	2,598.00	10.00	0.00	0	0
								point97	97	2,453,173.0	728,191.0	2,598.00	10.00	0.00	0	0
								point98	98	2,452,973.0	728,191.1	2,598.00	10.00	0.00	0	0
								point99	99	2,452,773.0	728,190.7	2,598.00	10.00	0.00	0	0
								point100	100	2,452,573.0	728,190.3	2,598.00	10.00	0.00	0	0
								point101	101	2,452,373.0	728,190.0	2,598.00	10.00			
Fox Run	W	0.00	99.99	0.00			0.00	point102	102	2,452,982.2	728,325.1	2,592.00	7.00	0.00	0	0
								point103	103	2,452,782.2	728,326.4	2,592.00	7.00	0.00	0	0
								point104	104	2,452,582.2	728,327.7	2,592.00	7.00	0.00	0	0
								point105	105	2,452,382.2	728,329.0	2,592.00	7.00			
Spurwing	W	0.00	99.99	0.00			0.00	point117	117	2,446,751.5	728,386.0	2,572.00	6.00	0.00	0	0
								point118	118	2,446,551.5	728,390.8	2,572.00	6.00	0.00	0	0
								point119	119	2,446,351.5	728,395.5	2,572.00	6.00	0.00	0	0
								point120	120	2,446,151.5	728,399.3	2,572.00	6.00	0.00	0	0
								point121	121	2,445,951.5	728,400.5	2,572.00	6.00	0.00	0	0
								point122	122	2,445,751.5	728,401.3	2,572.00	6.00	0.00	0	0
								point123	123	2,445,551.5	728,401.7	2,572.00	6.00	0.00	0	0
								point124	124	2,445,351.5	728,401.7	2,572.00	6.00	0.00	0	0
								point125	125	2,445,151.5	728,402.3	2,572.00	6.00	0.00	0	0
								point126	126	2,444,951.5	728,403.4	2,564.00	6.00	0.00	0	0
								point127	127	2,444,751.5	728,403.7	2,564.00	6.00	0.00	0	0
								point128	128	2,444,551.5	728,403.7	2,564.00	6.00	0.00	0	0

INPUT: BARRIERS

20_26 Corridor Study

							point129	129	2,444,352.0	728,410.4	2,564.00	6.00	0.00	0	0
							point130	130	2,444,166.5	728,422.6	2,564.00	6.00			
CoryBarton Neighborhood	W	0.00	99.99	0.00		0.00	point131	131	2,445,857.8	728,252.3	2,572.00	6.00	0.00	0	0
							point132	132	2,446,057.8	728,251.0	2,572.00	6.00	0.00	0	0
							point133	133	2,446,257.8	728,249.6	2,572.00	6.00	0.00	0	0
							point134	134	2,446,457.8	728,248.3	2,572.00	6.00	0.00	0	0
							point135	135	2,446,657.8	728,246.9	2,572.00	6.00	0.00	0	0
							point136	136	2,446,607.8	728,247.5	2,572.00	6.00	0.00	0	0
							point137	137	2,446,407.8	728,249.3	2,572.00	6.00	0.00	0	0
							point138	138	2,446,207.8	728,251.1	2,572.00	6.00			
Tree Farm	W	0.00	99.99	0.00		0.00	point139	139	2,442,619.5	728,431.2	2,557.00	15.00	0.00	0	0
							point140	140	2,442,419.5	728,434.8	2,557.00	15.00	0.00	0	0
							point141	141	2,442,219.5	728,438.4	2,557.00	15.00	0.00	0	0
							point142	142	2,442,019.5	728,442.0	2,557.00	15.00	0.00	0	0
							point171	171	2,441,819.5	728,445.5	2,557.00	15.00	0.00	0	0
							point143	143	2,441,719.5	728,574.5	2,557.00	15.00			
Bainbridge	W	0.00	99.99	0.00		0.00	point144	144	2,443,577.0	728,250.4	2,557.00	10.00	0.00	0	0
							point145	145	2,443,377.0	728,253.6	2,557.00	10.00	0.00	0	0
							point146	146	2,443,177.0	728,256.8	2,557.00	10.00	0.00	0	0
							point147	147	2,442,977.0	728,260.0	2,557.00	10.00	0.00	0	0
							point148	148	2,442,777.0	728,263.3	2,557.00	10.00	0.00	0	0
							point149	149	2,442,577.0	728,266.5	2,557.00	10.00	0.00	0	0
							point150	150	2,442,377.2	728,269.7	2,557.00	10.00	0.00	0	0
							point151	151	2,442,177.2	728,272.9	2,557.00	10.00	0.00	0	0
							point152	152	2,441,977.2	728,276.2	2,557.00	10.00	0.00	0	0
							point153	153	2,441,777.2	728,279.4	2,557.00	10.00			
Bristol Heights 2	W	0.00	99.99	0.00		0.00	point158	158	2,463,266.5	727,942.0	2,618.00	4.00	0.00	0	0
							point159	159	2,463,266.5	728,130.0	2,618.00	6.00	0.00	0	0
							point160	160	2,463,216.5	728,129.6	2,618.00	6.00	0.00	0	0
							point161	161	2,463,016.5	728,128.0	2,618.00	6.00	0.00	0	0
							point162	162	2,462,816.5	728,126.5	2,618.00	6.00	0.00	0	0
							point163	163	2,462,636.5	728,122.9	2,618.00	6.00	0.00	0	0
							point166	166	2,462,385.2	728,119.3	2,618.00	6.00			
R16 West	W	0.00	99.99	0.00		0.00	point169	169	2,461,833.0	728,154.0	2,618.00	4.00	0.00	0	0
							point170	170	2,461,697.0	728,154.0	2,618.00	4.00			
Castleberry-2	W	0.00	99.99	0.00		0.00	point172	172	2,457,000.0	728,404.6	2,604.00	6.00	0.00	0	0
							point66	66	2,456,996.0	728,307.7	2,604.00	6.00	0.00	0	0
							point67	67	2,456,796.0	728,312.5	2,604.00	6.00	0.00	0	0
							point68	68	2,456,596.2	728,311.1	2,604.00	6.00	0.00	0	0
							point69	69	2,456,396.2	728,309.7	2,604.00	6.00	0.00	0	0
							point70	70	2,456,196.2	728,311.9	2,604.00	6.00	0.00	0	0
							point71	71	2,455,996.2	728,315.3	2,604.00	10.00	0.00	0	0
							point72	72	2,455,796.2	728,319.7	2,604.00	10.00	0.00	0	0
							point73	73	2,455,596.2	728,324.2	2,604.00	10.00	0.00	0	0
							point157	157	2,455,396.5	728,328.6	2,604.00	10.00	0.00	0	0
							point156	156	2,455,196.5	728,333.0	2,604.00	10.00	0.00	0	0
							point74	74	2,454,996.5	728,336.9	2,604.00	10.00	0.00	0	0
							point75	75	2,454,771.0	728,334.0	2,604.00	10.00	0.00	0	0

point76	76	2,454,791.0	728,877.0	2,604.00	10.00

C15

AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 1

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
20_26 Westbnd- Eagle to Locust Grov	point1	1	1052	55	85	55	49	55	10	55	12	55
	point2	2	1052	55	85	55	49	55	10	55	12	55
	point3	3	1052	55	85	55	49	55	10	55	12	55
	point4	4	1052	55	85	55	49	55	10	55	12	55
	point5	5	1052	55	85	55	49	55	10	55	12	55
	point6	6	1052	55	85	55	49	55	10	55	12	55
	point190	190										
20_26 Eastbound- Star Rd. to McDermott	point135	135	465	55	37	55	26	55	0	0	0	0
	point151	151	465	55	37	55	26	55	0	0	0	0
	point152	152	465	55	37	55	26	55	0	0	0	0
	point153	153										
Eagle Rd SB 1	point56	56	539	45	20	45	21	45	0	0	0	0
	point57	57	539	45	20	45	21	45	0	0	0	0
	point58	58										
Eagle Rd SB 2	point59	59	540	45	20	45	15	45	0	0	0	0
	point60	60	540	45	20	45	15	45	0	0	0	0
	point61	61										
Eagle RD NB 1	point62	62	539	45	20	45	14	45	0	0	0	0
	point63	63	539	45	20	45	14	45	0	0	0	0
	point64	64										
Eagle Rd NB 2	point65	65	539	45	20	45	15	45	0	0	0	0
	point66	66	539	45	20	45	15	45	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point67	67										
Locust Grove NB_north of 20_26	point69	69	75	30	4	30	2	30	0	0	0	0
	point68	68										
Locust Grove NB-south of 20_26	point72	72	266	40	14	40	9	40	0	0	0	0
	point71	71	266	40	14	40	9	40	0	0	0	0
	point70	70										
Meridian SB north of 20_26	point74	74	81	35	6	35	4	35	0	0	0	0
	point73	73										
Meridian NB-south of 20_26	point75	75	81	35	6	35	4	35	0	0	0	0
	point76	76	81	35	6	35	4	35	0	0	0	0
	point77	77										
Linder NB-south of 20_26	point78	78	359	40	20	40	12	40	0	0	0	0
	point80	80										
Linder SB- north of 20_26	point83	83	570	40	31	40	19	40	0	0	0	0
	point114	114	570	40	31	40	19	40	0	0	0	0
	point81	81										
Ten Mile NB	point84	84	173	40	9	40	6	40	0	0	0	0
	point85	85										
Ten Mile SB	point87	87	36	35	3	35	2	35	0	0	0	0
	point86	86										
Blackcat SB-south of 20/26	point88	88	80	50	4	50	3	50	0	0	0	0
	point102	102	80	50	4	50	3	50	0	0	0	0
	point92	92										
Blackcat NB-north of 20_26	point91	91	1	50	1	50	1	50	0	0	0	0
	point90	90										
Blackcat SB-north of 20_26	point89	89	9	35	8	35	1	35	0	0	0	0
	point96	96										
Blackcat NB-south of 20_26	point103	103	61	50	3	50	2	50	0	0	0	0
	point104	104	61	50	3	50	2	50	0	0	0	0
	point108	108										
Linder NB-north of 20_26	point111	111	532	40	29	40	17	40	0	0	0	0
	point112	112	532	40	29	40	17	40	0	0	0	0
	point79	79										
Linder SB-south of 20_26	point115	115	407	40	22	40	13	40	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point116	116										
Meridian NB- north of 20_26	point117	117	80	40	4	40	3	40	0	0	0	0
	point118	118										
Meridian SB- south of 20_26	point121	121	81	35	6	35	4	35	0	0	0	0
	point120	120	81	35	6	35	4	35	0	0	0	0
	point119	119										
Locust Grove SB-north of 20_26	point122	122	114	35	9	35	6	35	0	0	0	0
	point123	123										
Locust Grove SB-south of 20_26	point124	124	114	35	9	35	6	35	0	0	0	0
	point125	125	114	35	9	35	6	35	0	0	0	0
	point126	126										
McDermott NB- south of 20-26	point136	136	8	35	1	35	0	0	0	0	0	0
	point137	137										
McDermott SB-southof 20_26	point139	139	8	35	1	35	0	0	0	0	0	0
	point138	138										
20_26 Eastbound-Mcdermott to Blk Cat-2	point160	160	465	55	37	55	26	55	8	55	8	55
	point159	159										
20_26 Eastbound-McDermott to Blk Cat 1	point161	161	550	55	44	55	25	55	6	55	6	55
	point145	145	550	55	44	55	25	55	6	55	6	55
	point146	146	126	55	44	55	25	55	6	55	6	55
	point147	147	550	55	44	55	25	55	6	55	6	55
	point148	148	550	55	44	55	25	55	6	55	6	55
	point154	154	550	55	44	55	25	55	6	55	6	55
	point155	155	550	55	44	55	25	55	6	55	6	55
	point156	156	550	55	44	55	25	55	6	55	6	55
	point157	157	550	55	44	55	25	55	6	55	6	55
	point158	158										
20_26 Westbound-Black Cat to Tree Far	point168	168	751	55	60	55	35	55	9	55	9	55
	point173	173	751	55	60	55	35	55	9	55	9	55
	point163	163	751	55	60	55	35	55	9	55	9	55
	point164	164	751	55	60	55	35	55	9	55	9	55
	point165	165	751	55	60	55	35	55	9	55	9	55
	point166	166	751	55	60	55	35	55	9	55	9	55
	point167	167	751	55	60	55	35	55	9	55	9	55

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point130	130	751	55	60	55	35	55	9	55	9	55
	point131	131	751	55	60	55	35	55	9	55	9	55
	point27	27	751	55	60	55	35	55	9	55	9	55
	point140	140	751	55	60	55	35	55	9	55	9	55
	point142	142										
20_26 Westbound-Star Rd to McDermott	point169	169	712	55	57	55	33	55	8	55	8	55
	point143	143	712	55	57	55	33	55	8	55	8	55
	point144	144	712	55	57	55	33	55	8	55	8	55
	point141	141	712	55	57	55	33	55	8	55	8	55
	point28	28										
20_26 Eastbnd- Black Cat to Ten Mile	point171	171	566	55	46	55	26	55	6	55	6	55
	point170	170	566	55	46	55	26	55	6	55	6	55
	point149	149	566	55	46	55	26	55	6	55	6	55
	point132	132	566	55	46	55	26	55	6	55	6	55
	point30	30	566	55	46	55	26	55	6	55	6	55
	point31	31	566	55	46	55	26	55	6	55	6	55
	point32	32	566	55	46	55	26	55	6	55	6	55
	point203	203										
20_26 Westbound-Linder to Ten Mile	point174	174	942	55	76	55	43	55	9	55	9	55
	point17	17	942	55	76	55	43	55	9	55	9	55
	point18	18	942	55	76	55	43	55	9	55	9	55
	point19	19	942	55	76	55	43	55	9	55	9	55
	point20	20	942	55	76	55	43	55	9	55	9	55
	point21	21	942	55	76	55	43	55	9	55	9	55
	point22	22	942	55	76	55	43	55	9	55	9	55
	point201	201										
20_26 Eastbnd-Linder to Meridian	point175	175	731	55	59	55	34	55	8	55	8	55
	point39	39	731	55	59	55	34	55	8	55	8	55
	point40	40	731	55	59	55	34	55	8	55	8	55
	point41	41	731	55	59	55	34	55	8	55	8	55
	point42	42	731	55	59	55	34	55	8	55	8	55
	point43	43	731	55	59	55	34	55	8	55	8	55
	point44	44	731	55	59	55	34	55	8	55	8	55
	point183	183										

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

20_26 Westbound-Meridian to Linder	point182	182	961	55	78	55	44	55	11	55	11	55
	point178	178	961	55	78	55	44	55	11	55	11	55
	point179	179	961	55	78	55	44	55	11	55	11	55
	point180	180	961	55	78	55	44	55	11	55	11	55
	point181	181	961	55	78	55	44	55	11	55	11	55
	point12	12	961	55	78	55	44	55	11	55	11	55
	point13	13	961	55	78	55	44	55	11	55	11	55
	point14	14	961	55	78	55	44	55	11	55	11	55
	point15	15	961	55	78	55	44	55	11	55	11	55
	point16	16										
20_26 Eastbnd-Meridian to Locust Grove	point189	189	731	55	59	55	34	55	9	55	9	55
	point184	184	731	55	59	55	34	55	9	55	9	55
	point185	185	731	55	59	55	34	55	9	55	9	55
	point186	186	731	55	59	55	34	55	9	55	9	55
	point187	187	731	55	59	55	34	55	9	55	9	55
	point188	188	731	55	59	55	34	55	9	55	9	55
	point45	45	731	55	59	55	34	55	9	55	9	55
	point46	46	731	55	59	55	34	55	9	55	9	55
	point47	47	731	55	59	55	34	55	9	55	9	55
	point48	48	731	55	59	55	34	55	9	55	9	55
	point49	49										
20_26 Westbnd-locust Grove to Meridian	point196	196	1032	55	83	55	48	55	12	55	12	55
	point191	191	1032	55	83	55	48	55	12	55	12	55
	point192	192	1032	55	83	55	48	55	12	55	12	55
	point193	193	1032	55	83	55	48	55	12	55	12	55
	point194	194	1032	55	83	55	48	55	12	55	12	55
	point195	195	1032	55	83	55	48	55	12	55	12	55
	point7	7	1032	55	83	55	48	55	12	55	12	55
	point8	8	1032	55	83	55	48	55	12	55	12	55
	point9	9	1032	55	83	55	48	55	12	55	12	55
	point10	10	1032	55	83	55	48	55	12	55	12	55
	point11	11	1032	55	83	55	48	55	12	55	12	55
	point176	176	1032	55	83	55	48	55	12	55	12	55
	point177	177										

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

20_26 Eastbound-Locust Grove to Eagle	point200	200	845	55	68	55	39	55	10	55	10	55
	point197	197	845	55	68	55	39	55	10	55	10	55
	point198	198	845	55	68	55	39	55	10	55	10	55
	point199	199	845	55	68	55	39	55	10	55	10	55
	point50	50	845	55	68	55	39	55	10	55	10	55
	point51	51	845	55	68	55	39	55	10	55	10	55
	point52	52	845	55	68	55	39	55	10	55	10	55
	point54	54										
20_26 Westbound-Ten Mile to Black Cat	point202	202	879	55	71	55	40	55	9	55	9	55
	point23	23	879	55	71	55	40	55	9	55	9	55
	point24	24	879	55	71	55	40	55	9	55	9	55
	point25	25	879	55	71	55	40	55	9	55	9	55
	point128	128	879	55	71	55	40	55	9	55	9	55
	point127	127	879	55	71	55	40	55	9	55	9	55
	point162	162										
20_26 Eastbnd- Ten Mile to Linder	point204	204	674	55	54	55	31	55	7	55	7	55
	point33	33	674	55	54	55	31	55	7	55	7	55
	point34	34	674	55	54	55	31	55	7	55	7	55
	point35	35	674	55	54	55	31	55	7	55	7	55
	point36	36	674	55	54	55	31	55	7	55	7	55
	point37	37	674	55	54	55	31	55	7	55	7	55
	point38	38										

RESULTS: SOUND LEVELS

20_26 Corridor

AXIOM POINTS
Kari Frederick

8 July 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor
RUN: Exist 2
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
83	2	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
81	3	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0
80	4	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
82	5	1	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
79	6	1	0.0	59.9	66	59.9	10	----	59.9	0.0	8	-8.0
75	7	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
73	8	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
78	9	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
77	11	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
74	12	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
72	13	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
71	14	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
69	15	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
70	16	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
68	17	1	0.0	63.6	66	63.6	10	----	63.6	0.0	8	-8.0
67	18	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
64	19	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
62	20	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
60	21	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
65	22	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
59	24	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
57	25	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
55	26	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0

RESULTS: SOUND LEVELS

20_26 Corridor

52	27	1	0.0	55.8	66	55.8	10	----	55.8	0.0	8	-8.0
53	28	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0
51	29	1	0.0	61.3	66	61.3	10	----	61.3	0.0	8	-8.0
58	30	1	0.0	65.3	66	65.3	10	----	65.3	0.0	8	-8.0
49	31	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
48	32	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
46	33	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
47	34	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
66	38	1	0.0	57.2	66	57.2	10	----	57.2	0.0	8	-8.0
63	39	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
61	40	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0
56	68	1	0.0	57.5	66	57.5	10	----	57.5	0.0	8	-8.0
54	69	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
76	73	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	37	0.0	0.0	0.0
All Impacted	6	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

INPUT: ROADWAYS

20_26 Corridor

AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 20_26 Corridor
RUN: Exist 2

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
20_26 WB_ McDermott to Star Rd	12.0	point1	1	2,437,026.0	728,433.5	2,540.00				Average	
		point2	2	2,436,026.0	728,441.7	2,536.00				Average	
		point3	3	2,435,026.0	728,454.1	2,534.00				Average	
		point4	4	2,434,026.2	728,467.5	2,532.00				Average	
		point5	5	2,433,026.2	728,473.5	2,530.00				Average	
		point6	6	2,432,026.2	728,485.2	2,528.00				Average	
		point7	7	2,431,026.5	728,498.1	2,522.00				Average	
		point8	8	2,430,026.5	728,512.5	2,520.00				Average	
		point9	9	2,429,029.0	728,532.0	2,516.00				Average	
		point180	180	2,428,886.2	728,536.7	2,515.71				Average	
		point181	181	2,428,743.5	728,541.3	2,515.43				Average	
		point182	182	2,428,600.8	728,546.0	2,515.14				Average	
		point183	183	2,428,457.8	728,550.7	2,514.86				Average	
		point184	184	2,428,315.0	728,555.4	2,514.57					
20_26 EB_ Midland to Northside	12.0	point68	68	2,396,578.5	728,857.4	2,435.00				Average	
		point69	69	2,397,578.5	728,852.8	2,436.00				Average	
		point70	70	2,398,578.5	728,846.7	2,438.00				Average	
		point71	71	2,399,578.2	728,839.7	2,440.00				Average	
		point72	72	2,400,578.2	728,831.0	2,440.00				Average	
		point73	73	2,401,578.2	728,825.2	2,444.00				Average	
		point74	74	2,402,578.2	728,817.1	2,444.00				Average	
		point75	75	2,403,578.2	728,809.9	2,445.00				Average	
		point76	76	2,404,578.2	728,803.4	2,448.00				Average	
		point77	77	2,405,578.2	728,800.8	2,442.00				Average	
		point78	78	2,406,578.0	728,796.1	2,440.00					

INPUT: ROADWAYS **20_26 Corridor**

SB Midland_ south of 20_26	12.0	point110	110	2,401,825.0	728,809.8	2,444.00				Average
		point111	111	2,401,822.0	727,517.3	2,444.00				
SB Midland_ north of 20_26	12.0	point112	112	2,401,847.5	730,068.5	2,444.00				Average
		point113	113	2,401,827.0	728,857.0	2,444.00				
McDermott SB-southof 20_26	12.0	point114	114	2,433,598.0	728,436.0	2,530.00				Average
		point115	115	2,433,566.0	727,319.2	2,530.00				
NB Midland_ south of 20_26	12.0	point116	116	2,401,836.0	727,517.3	2,444.00				Average
		point117	117	2,401,835.0	728,809.8	2,444.00				
NB Midland _north of 20_26	12.0	point118	118	2,401,836.0	728,857.0	2,444.00				Average
		point119	119	2,401,849.5	730,068.5	2,444.00				
McDermott NB- south of 20-26	12.0	point120	120	2,433,578.8	727,319.2	2,530.00				Average
		point121	121	2,433,610.2	728,436.0	2,530.00				
SB Northside- south of 20_26	12.0	point123	123	2,407,091.5	728,771.5	2,440.00				Average
		point122	122	2,407,087.0	727,479.0	2,440.00				
NB Northside_south of 20_26	12.0	point124	124	2,407,089.5	727,479.0	2,440.00				Average
		point125	125	2,407,105.0	728,771.5	2,440.00				
SB Franklin_north of 20_26	12.0	point126	126	2,412,412.5	729,730.8	2,472.00				Average
		point127	127	2,412,405.8	728,739.0	2,472.00				
NB Franklin_ south of 20_26	12.0	point129	129	2,412,426.0	727,393.5	2,472.00				Average
		point146	146	2,412,426.0	727,977.8	2,472.00				Average
		point147	147	2,412,426.0	728,712.0	2,472.00				
SB 11th Ave_ north of 20_26	12.0	point131	131	2,417,767.0	729,600.2	2,482.00				Average
		point130	130	2,417,760.2	728,670.0	2,482.00				
NB 11th Ave_ south of 20_26	12.0	point133	133	2,417,773.8	727,510.6	2,482.00				Average
		point132	132	2,417,785.0	728,627.4	2,482.00				
NB CanAda Rd	12.0	point135	135	2,423,119.5	727,328.2	2,496.00				Average
		point134	134	2,423,144.2	728,600.0	2,496.00				
SB Can Ada- North of 20_26	12.0	point136	136	2,423,162.2	729,742.0	2,498.00				Average
		point137	137	2,423,133.0	728,628.0	2,498.00				
SB Star Rd_ north of 20_26	12.0	point138	138	2,428,307.5	729,800.6	2,530.00				Average
		point139	139	2,428,280.5	728,575.0	2,530.00				
NB Star Rd_south of 20_26	12.0	point141	141	2,428,278.2	727,188.6	2,530.00				Average
		point140	140	2,428,298.5	728,496.0	2,530.00				
NB Northside_ north of 20_26	12.0	point142	142	2,407,089.5	728,816.7	2,441.00				Average
		point143	143	2,407,105.0	729,262.9	2,441.00				
SB Northside_ south of 20_26	12.0	point144	144	2,407,082.0	729,262.9	2,440.00				Average
		point145	145	2,407,082.0	728,823.1	2,440.00				
NB Franklin-north of 20_26	12.0	point152	152	2,412,426.0	728,739.0	2,472.00				Average

INPUT: ROADWAYS **20_26 Corridor**

		point150	150	2,412,426.0	728,854.3	2,472.00				Average
		point151	151	2,412,426.0	729,000.4	2,472.00				Average
		point148	148	2,412,426.0	729,146.5	2,472.00				Average
		point128	128	2,412,426.0	729,730.8	2,472.00				
SB Franklin_ south of 20_26	12.0	point154	154	2,412,405.8	728,712.0	2,472.00				Average
		point153	153	2,412,412.5	727,393.5	2,472.00				
NB 11th Ave_ north of 20_26	12.0	point156	156	2,417,785.0	728,670.0	2,482.00				Average
		point155	155	2,417,773.8	729,600.2	2,482.00				
SB 11th Avenue_ south of 20_26	12.0	point158	158	2,417,760.2	728,627.4	2,482.00				Average
		point157	157	2,417,767.0	727,510.6	2,482.00				
SB Can Ada Rd_ south of 20_26	12.0	point160	160	2,423,133.0	728,600.0	2,496.00				Average
		point159	159	2,423,110.0	727,328.2	2,496.00				
NB CanAda_north of 20_26	12.0	point162	162	2,423,144.2	728,628.0	2,498.00				Average
		point161	161	2,423,200.0	729,742.0	2,498.00				
NB Star Rd_ north of 20_26	12.0	point177	177	2,428,298.5	728,575.0	2,530.00				Average
		point175	175	2,428,344.0	729,800.6	2,530.00				
SB Star Rd_ south of 20_26	12.0	point179	179	2,428,280.5	728,496.0	2,530.00				Average
		point178	178	2,428,253.0	727,188.6	2,530.00				
20_26 WB_Northside to Midland	12.0	point192	192	2,408,031.8	728,793.1	2,448.00				Average
		point31	31	2,407,031.8	728,804.8	2,444.00				Average
		point32	32	2,406,031.8	728,811.0	2,443.00				Average
		point33	33	2,405,031.8	728,816.3	2,442.00				Average
		point34	34	2,404,031.8	728,820.7	2,448.00				Average
		point35	35	2,403,031.8	728,826.7	2,445.00				Average
		point36	36	2,402,032.0	728,831.7	2,444.00				Average
		point37	37	2,401,032.0	728,841.6	2,442.00				Average
		point38	38	2,400,032.2	728,860.5	2,440.00				Average
		point39	39	2,399,032.2	728,855.7	2,437.00				Average
		point40	40	2,398,032.5	728,864.0	2,433.00				Average
		point41	41	2,397,032.5	728,873.9	2,432.00				
20_26 EB_ Northside to Franklin	12.0	point193	193	2,406,578.0	728,796.1	2,440.00				Average
		point79	79	2,407,578.0	728,786.4	2,442.00				Average
		point80	80	2,408,578.0	728,773.8	2,448.00				Average
		point81	81	2,409,578.0	728,758.8	2,450.00				Average
		point82	82	2,410,577.8	728,745.3	2,458.00				Average
		point83	83	2,411,577.5	728,729.8	2,468.00				
20_26 WB_Franklin to Northside	12.0	point194	194	2,413,031.0	728,723.3	2,474.00				Average
		point26	26	2,412,031.2	728,739.2	2,472.00				Average

INPUT: ROADWAYS **20_26 Corridor**

		point27	27	2,411,031.5	728,750.9	2,468.00				Average
		point28	28	2,410,031.5	728,764.7	2,458.00				Average
		point29	29	2,409,031.5	728,778.7	2,450.00				Average
		point30	30	2,408,031.8	728,793.1	2,448.00				
20_26 EB_ Franklin to Can Ada	12.0	point195	195	2,411,577.5	728,729.8	2,468.00				Average
		point84	84	2,412,577.5	728,710.0	2,474.00				Average
		point85	85	2,413,577.5	728,702.9	2,476.00				Average
		point86	86	2,414,577.2	728,689.7	2,478.00				Average
		point87	87	2,415,577.2	728,677.1	2,479.00				Average
		point88	88	2,416,577.0	728,663.8	2,480.00				Average
		point89	89	2,417,577.0	728,652.8	2,482.00				Average
		point90	90	2,418,577.0	728,639.0	2,485.00				Average
		point91	91	2,419,576.8	728,628.2	2,490.00				Average
		point92	92	2,420,576.8	728,616.7	2,492.00				Average
		point93	93	2,421,576.8	728,611.8	2,496.00				Average
		point94	94	2,422,576.5	728,606.2	2,498.00				Average
		point163	163	2,422,719.2	728,605.1	2,498.29				Average
		point164	164	2,422,862.2	728,603.9	2,498.57				Average
		point165	165	2,423,005.0	728,602.8	2,498.86				
20_26 WB_Can Ada to Franklin	12.0	point196	196	2,423,173.2	728,614.3	2,502.29				Average
		point15	15	2,423,030.5	728,616.2	2,502.00				Average
		point16	16	2,422,030.5	728,623.4	2,496.00				Average
		point17	17	2,421,030.5	728,631.8	2,494.00				Average
		point18	18	2,420,030.5	728,635.0	2,490.00				Average
		point19	19	2,419,030.5	728,647.5	2,486.00				Average
		point20	20	2,418,030.8	728,660.0	2,484.00				Average
		point21	21	2,417,030.8	728,670.0	2,482.00				Average
		point22	22	2,416,030.8	728,684.0	2,480.00				Average
		point23	23	2,415,031.0	728,697.0	2,478.00				Average
		point24	24	2,414,031.0	728,708.1	2,476.00				Average
		point25	25	2,413,031.0	728,723.3	2,474.00				
20_26 EB_ Can Ada to Star Rd	12.0	point197	197	2,423,005.0	728,602.8	2,498.86				Average
		point166	166	2,423,148.0	728,601.7	2,499.14				Average
		point167	167	2,423,290.8	728,600.6	2,499.43				Average
		point168	168	2,423,433.8	728,599.4	2,499.71				Average
		point95	95	2,423,576.5	728,598.3	2,500.00				Average
		point96	96	2,424,576.5	728,581.2	2,504.00				Average
		point97	97	2,425,576.2	728,564.0	2,506.00				Average

INPUT: ROADWAYS **20_26 Corridor**

		point98	98	2,426,576.2	728,550.1	2,510.00				Average	
		point99	99	2,427,576.0	728,535.1	2,512.00				Average	
		point186	186	2,427,718.8	728,533.1	2,512.29				Average	
		point187	187	2,427,861.8	728,531.1	2,512.57				Average	
		point188	188	2,428,004.5	728,529.0	2,512.86				Average	
		point189	189	2,428,147.5	728,527.0	2,513.14				Average	
		point190	190	2,428,290.2	728,524.9	2,513.43					
20_26 WB_ Star Rd to Can Ada	12.0	point198	198	2,428,315.0	728,555.4	2,514.57				Average	
		point185	185	2,428,172.2	728,560.0	2,514.29				Average	
		point10	10	2,428,029.5	728,564.7	2,514.00				Average	
		point11	11	2,427,030.0	728,555.7	2,510.00				Average	
		point12	12	2,426,030.0	728,571.0	2,508.00				Average	
		point13	13	2,425,030.2	728,587.1	2,506.00				Average	
		point14	14	2,424,030.2	728,602.9	2,504.00				Average	
		point169	169	2,423,887.5	728,604.8	2,503.71				Average	
		point170	170	2,423,744.5	728,606.7	2,503.43				Average	
		point171	171	2,423,601.8	728,608.6	2,503.14				Average	
		point172	172	2,423,459.0	728,610.5	2,502.86				Average	
		point173	173	2,423,316.2	728,612.4	2,502.57				Average	
		point174	174	2,423,173.2	728,614.3	2,502.29					
20_26 EB_ Star Rd to McDermott	12.0	point199	199	2,428,290.2	728,524.9	2,513.43				Average	
		point191	191	2,428,433.2	728,522.9	2,513.71				Average	
		point100	100	2,428,576.0	728,520.9	2,514.00				Average	
		point101	101	2,429,574.8	728,503.3	2,510.00				Average	
		point102	102	2,430,574.8	728,490.5	2,524.00				Average	
		point103	103	2,431,574.5	728,478.5	2,525.00				Average	
		point104	104	2,432,574.5	728,465.1	2,527.00				Average	
		point105	105	2,433,574.5	728,448.7	2,530.00				Average	
		point106	106	2,434,574.5	728,445.0	2,532.00				Average	
		point107	107	2,435,574.2	728,432.7	2,533.00				Average	
		point108	108	2,436,574.2	728,424.1	2,534.00				Average	
		point109	109	2,437,574.2	728,413.4	2,536.00					

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AXIOM POINTS 10 July 2015
Kari Frederick TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 20_26 Corridor
RUN: Exist 2

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
20_26 WB_ McDermott to Star Rd	point1	1	463	55	37	55	26	55	0	0	0	0
	point2	2	463	55	37	55	26	55	0	0	0	0
	point3	3	463	55	37	55	26	55	0	0	0	0
	point4	4	463	55	37	55	26	55	0	0	0	0
	point5	5	463	55	37	55	26	55	0	0	0	0
	point6	6	463	55	37	55	26	55	0	0	0	0
	point7	7	463	55	37	55	26	55	0	0	0	0
	point8	8	463	55	37	55	26	55	0	0	0	0
	point9	9	463	55	37	55	26	55	0	0	0	0
	point180	180	463	55	37	55	26	55	0	0	0	0
	point181	181	463	55	37	55	26	55	0	0	0	0
	point182	182	463	55	37	55	26	55	0	0	0	0
	point183	183	463	55	37	55	26	55	0	0	0	0
	point184	184										
20_26 EB_ Midland to Northside	point68	68	378	55	30	55	17	55	4	55	4	55
	point69	69	378	55	30	55	17	55	4	55	4	55
	point70	70	378	55	30	55	17	55	4	55	4	55
	point71	71	378	55	30	55	17	55	4	55	4	55
	point72	72	378	55	30	55	17	55	4	55	4	55
	point73	73	378	55	30	55	17	55	4	55	4	55
	point74	74	378	55	30	55	17	55	4	55	4	55
	point75	75	378	55	30	55	17	55	4	55	4	55

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor**

	point76	76	378	55	30	55	17	55	4	55	4	55
	point77	77	378	55	30	55	17	55	4	55	4	55
	point78	78										
SB Midland_ south of 20_26	point110	110	27	45	1	45	1	45	0	0	0	0
	point111	111										
SB Midland_ north of 20_26	point112	112	6	35	6	35	1	35	0	0	0	0
	point113	113										
McDermott SB-southof 20_26	point114	114	8	35	1	35	0	0	0	0	0	0
	point115	115										
NB Midland_ south of 20_26	point116	116	36	35	3	35	2	35	0	0	0	0
	point117	117										
NB Midland _north of 20_26	point118	118	17	50	16	50	1	50	0	0	0	0
	point119	119										
McDermott NB- south of 20-26	point120	120	8	35	1	35	0	0	0	0	0	0
	point121	121										
SB Northside- south of 20_26	point123	123	101	35	6	35	3	35	0	0	0	0
	point122	122										
NB Northside_south of 20_26	point124	124	143	35	8	35	5	35	0	0	0	0
	point125	125										
SB Franklin_north of 20_26	point126	126	9	35	1	35	1	35	0	0	0	0
	point127	127										
NB Franklin_ south of 20_26	point129	129	145	35	8	35	5	35	0	0	0	0
	point146	146	145	35	8	35	5	35	0	0	0	0
	point147	147										
SB 11th Ave_ north of 20_26	point131	131	6	35	1	35	0	0	0	0	0	0
	point130	130										
NB 11th Ave_ south of 20_26	point133	133	30	35	2	35	1	35	0	0	0	0
	point132	132										
NB CanAda Rd	point135	135	165	35	9	35	5	35	0	0	0	0
	point134	134										
SB Can Ada- North of 20_26	point136	136	6	35	0	0	0	0	0	0	0	0
	point137	137										
SB Star Rd_ north of 20_26	point138	138	407	50	22	50	13	50	0	0	0	0
	point139	139										

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor**

NB Star Rd_south of 20_26	point141	141	317	50	17	50	10	50	0	0	0	0
	point140	140										
NB Northside_ north of 20_26	point142	142	9	35	1	35	0	0	0	0	0	0
	point143	143										
SB Northside_ south of 20_26	point144	144	5	35	5	35	1	35	0	0	0	0
	point145	145										
NB Franklin-north of 20_26	point152	152	59	35	4	35	3	35	0	0	0	0
	point150	150	59	35	4	35	3	35	0	0	0	0
	point151	151	59	35	4	35	3	35	0	0	0	0
	point148	148	59	35	4	35	3	35	0	0	0	0
	point128	128										
SB Franklin_ south of 20_26	point154	154	112	35	6	35	4	35	0	0	0	0
	point153	153										
NB 11th Ave_ north of 20_26	point156	156	6	35	1	35	0	0	0	0	0	0
	point155	155										
SB 11th Avenue_ south of 20_26	point158	158	31	35	2	35	1	35	0	0	0	0
	point157	157										
SB Can Ada Rd_ south of 20_26	point160	160	135	50	7	50	4	50	0	0	0	0
	point159	159										
NB CanAda_north of 20_26	point162	162	12	35	1	35	0	0	0	0	0	0
	point161	161										
NB Star Rd_ north of 20_26	point177	177	650	50	35	50	21	50	0	0	0	0
	point175	175										
SB Star Rd_ south of 20_26	point179	179	244	50	13	50	8	50	0	0	0	0
	point178	178										
20_26 WB_Northside to Midland	point192	192	492	55	40	55	23	55	6	55	6	55
	point31	31	492	55	40	55	23	55	6	55	6	55
	point32	32	492	55	40	55	23	55	6	55	6	55
	point33	33	492	55	40	55	23	55	6	55	6	55
	point34	34	492	55	40	55	23	55	6	55	6	55
	point35	35	492	55	40	55	23	55	6	55	6	55
	point36	36	492	55	40	55	23	55	6	55	6	55
	point37	37	492	55	40	55	23	55	6	55	6	55
	point38	38	492	55	40	55	23	55	6	55	6	55

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor**

	point39	39	492	55	40	55	23	55	6	55	6	55
	point40	40	492	55	40	55	23	55	6	55	6	55
	point41	41										
20_26 EB_ Northside to Franklin	point193	193	419	55	33	55	24	55	0	0	0	0
	point79	79	419	55	33	55	24	55	0	0	0	0
	point80	80	419	55	33	55	24	55	0	0	0	0
	point81	81	419	55	33	55	24	55	0	0	0	0
	point82	82	419	55	33	55	24	55	0	0	0	0
	point83	83										
20_26 WB_Franklin to Northside	point194	194	437	55	35	55	25	55	0	0	0	0
	point26	26	437	55	35	55	25	55	0	0	0	0
	point27	27	437	55	35	55	25	55	0	0	0	0
	point28	28	437	55	35	55	25	55	0	0	0	0
	point29	29	437	55	35	55	25	55	0	0	0	0
	point30	30										
20_26 EB_ Franklin to Can Ada	point195	195	419	55	33	55	24	55	0	0	0	0
	point84	84	419	55	33	55	24	55	0	0	0	0
	point85	85	419	55	33	55	24	55	0	0	0	0
	point86	86	419	55	33	55	24	55	0	0	0	0
	point87	87	419	55	33	55	24	55	0	0	0	0
	point88	88	419	55	33	55	24	55	0	0	0	0
	point89	89	419	55	33	55	24	55	0	0	0	0
	point90	90	419	55	33	55	24	55	0	0	0	0
	point91	91	419	55	33	55	24	55	0	0	0	0
	point92	92	419	55	33	55	24	55	0	0	0	0
	point93	93	419	55	33	55	24	55	0	0	0	0
	point94	94	419	55	33	55	24	55	0	0	0	0
	point163	163	419	55	33	55	24	55	0	0	0	0
	point164	164	419	55	33	55	24	55	0	0	0	0
	point165	165										
20_26 WB_Can Ada to Franklin	point196	196	574	55	47	55	27	55	7	55	7	55
	point15	15	574	55	47	55	27	55	7	55	7	55
	point16	16	574	55	47	55	27	55	7	55	7	55
	point17	17	574	55	47	55	27	55	7	55	7	55

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor**

	point18	18	574	55	47	55	27	55	7	55	7	55
	point19	19	574	55	47	55	27	55	7	55	7	55
	point20	20	574	55	47	55	27	55	7	55	7	55
	point21	21	574	55	47	55	27	55	7	55	7	55
	point22	22	574	55	47	55	27	55	7	55	7	55
	point23	23	574	55	47	55	27	55	7	55	7	55
	point24	24	574	55	47	55	27	55	7	55	7	55
	point25	25										
20_26 EB_ Can Ada to Star Rd	point197	197	419	55	33	55	24	55	0	0	0	0
	point166	166	419	55	33	55	24	55	0	0	0	0
	point167	167	419	55	33	55	24	55	0	0	0	0
	point168	168	419	55	33	55	24	55	0	0	0	0
	point95	95	419	55	33	55	24	55	0	0	0	0
	point96	96	419	55	33	55	24	55	0	0	0	0
	point97	97	419	55	33	55	24	55	0	0	0	0
	point98	98	419	55	33	55	24	55	0	0	0	0
	point99	99	419	55	33	55	24	55	0	0	0	0
	point186	186	419	55	33	55	24	55	0	0	0	0
	point187	187	419	55	33	55	24	55	0	0	0	0
	point188	188	419	55	33	55	24	55	0	0	0	0
	point189	189	419	55	33	55	24	55	0	0	0	0
	point190	190										
20_26 WB_ Star Rd to Can Ada	point198	198	640	55	52	55	29	55	7	55	7	55
	point185	185	640	55	52	55	29	55	7	55	7	55
	point10	10	640	55	52	55	29	55	7	55	7	55
	point11	11	640	55	52	55	29	55	7	55	7	55
	point12	12	640	55	52	55	29	55	7	55	7	55
	point13	13	640	55	52	55	29	55	7	55	7	55
	point14	14	640	55	52	55	29	55	7	55	7	55
	point169	169	640	55	52	55	29	55	7	55	7	55
	point170	170	640	55	52	55	29	55	7	55	7	55
	point171	171	640	55	52	55	29	55	7	55	7	55
	point172	172	640	55	52	55	29	55	7	55	7	55
	point173	173	640	55	52	55	29	55	7	55	7	55

INPUT: TRAFFIC FOR LAeq1h Volumes

20_26 Corridor

	point174	174										
20_26 EB_ Star Rd to McDermott	point199	199	454	55	36	55	26	55	0	0	0	0
	point191	191	454	55	36	55	26	55	0	0	0	0
	point100	100	454	55	36	55	26	55	0	0	0	0
	point101	101	454	55	36	55	26	55	0	0	0	0
	point102	102	454	55	36	55	26	55	0	0	0	0
	point103	103	454	55	36	55	26	55	0	0	0	0
	point104	104	454	55	36	55	0	55	0	0	0	0
	point105	105	454	55	36	55	26	55	0	0	0	0
	point106	106	454	55	36	55	26	55	0	0	0	0
	point107	107	454	55	36	55	26	55	0	0	0	0
	point108	108	454	55	36	55	26	55	0	0	0	0
	point109	109										

RESULTS: SOUND LEVELS

20_26 Corridor Study

AXIOM POINTS
kari Frederick

8 July 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 3
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
41	1	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
38	2	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
43	3	1	0.0	54.8	66	54.8	10	----	54.8	0.0	8	-8.0
40	4	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
39	5	1	0.0	65.5	66	65.5	10	----	65.5	0.0	8	-8.0
33	6	1	0.0	61.7	66	61.7	10	----	61.7	0.0	8	-8.0
31	7	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
30	8	1	0.0	60.5	66	60.5	10	----	60.5	0.0	8	-8.0
28	9	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
35	10	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
34	11	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
32	12	1	0.0	54.7	66	54.7	10	----	54.7	0.0	8	-8.0
29	13	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
26	14	1	0.0	58.8	66	58.8	10	----	58.8	0.0	8	-8.0
24	15	1	0.0	61.5	66	61.5	10	----	61.5	0.0	8	-8.0
23	16	1	0.0	60.6	66	60.6	10	----	60.6	0.0	8	-8.0
22	17	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
18	18	1	0.0	55.8	66	55.8	10	----	55.8	0.0	8	-8.0
15	19	1	0.0	53.0	66	53.0	10	----	53.0	0.0	8	-8.0
27	20	1	0.0	58.7	66	58.7	10	----	58.7	0.0	8	-8.0
25	21	1	0.0	60.3	66	60.3	10	----	60.3	0.0	8	-8.0
21	22	1	0.0	58.3	66	58.3	10	----	58.3	0.0	8	-8.0
16	23	1	0.0	54.8	66	54.8	10	----	54.8	0.0	8	-8.0

RESULTS: SOUND LEVELS **20_26 Corridor Study**

14	24	1	0.0	55.4	66	55.4	10	----	55.4	0.0	8	-8.0
13	25	1	0.0	62.0	66	62.0	10	----	62.0	0.0	8	-8.0
12	26	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
37	27	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
20	28	1	0.0	54.0	66	54.0	10	----	54.0	0.0	8	-8.0
19	29	1	0.0	54.3	66	54.3	10	----	54.3	0.0	8	-8.0
10	30	1	0.0	56.7	66	56.7	10	----	56.7	0.0	8	-8.0
9	68	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
11	69	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
8	70	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0
7	71	1	0.0	53.5	66	53.5	10	----	53.5	0.0	8	-8.0
6	72	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
5	73	1	0.0	62.4	66	62.4	10	----	62.4	0.0	8	-8.0
4	74	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
3	75	1	0.0	55.2	66	55.2	10	----	55.2	0.0	8	-8.0
2	76	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
1	77	1	0.0	54.3	66	54.3	10	----	54.3	0.0	8	-8.0
44	79	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
17	80	1	0.0	53.7	66	53.7	10	----	53.7	0.0	8	-8.0
42	82	1	0.0	54.5	66	54.5	10	----	54.5	0.0	8	-8.0
36	83	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
45	85	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0

Dwelling Units	**# DUs**	**Noise Reduction**		
		Min	**Avg**	**Max**
		dB	**dB**	**dB**
All Selected	45	0.0	0.0	0.0
All Impacted	1	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

AXIOM POINTS 10 July 2015
kari Frederick TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 3

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
20_26 WB Midland to Middleton	12.0	point1	1	2,437,026.0	728,433.5	2,540.00				Average	
		point2	2	2,436,026.0	728,441.7	2,536.00				Average	
		point3	3	2,435,026.0	728,454.1	2,534.00				Average	
		point4	4	2,434,026.2	728,467.5	2,532.00				Average	
		point5	5	2,433,026.2	728,473.5	2,530.00				Average	
		point6	6	2,432,026.2	728,485.2	2,528.00				Average	
		point7	7	2,431,026.5	728,498.1	2,522.00				Average	
		point8	8	2,430,026.5	728,512.5	2,520.00				Average	
		point9	9	2,429,029.0	728,532.0	2,516.00				Average	
		point10	10	2,428,029.5	728,564.7	2,514.00				Average	
		point11	11	2,427,030.0	728,555.7	2,510.00				Average	
		point12	12	2,426,030.0	728,571.0	2,508.00				Average	
		point13	13	2,425,030.2	728,587.1	2,506.00				Average	
		point14	14	2,424,030.2	728,602.9	2,504.00				Average	
		point15	15	2,423,030.5	728,616.2	2,502.00				Average	
		point16	16	2,422,030.5	728,623.4	2,496.00				Average	
		point17	17	2,421,030.5	728,631.8	2,494.00				Average	
		point18	18	2,420,030.5	728,635.0	2,490.00				Average	
		point19	19	2,419,030.5	728,647.5	2,486.00				Average	
		point20	20	2,418,030.8	728,660.0	2,484.00				Average	
		point21	21	2,417,030.8	728,670.0	2,482.00				Average	
		point22	22	2,416,030.8	728,684.0	2,480.00				Average	
		point23	23	2,415,031.0	728,697.0	2,478.00				Average	
		point24	24	2,414,031.0	728,708.1	2,476.00				Average	
		point25	25	2,413,031.0	728,723.3	2,474.00				Average	

		point26	26	2,412,031.2	728,739.2	2,472.00				Average
		point27	27	2,411,031.5	728,750.9	2,468.00				Average
		point28	28	2,410,031.5	728,764.7	2,458.00				Average
		point29	29	2,409,031.5	728,778.7	2,450.00				Average
		point30	30	2,408,031.8	728,793.1	2,448.00				Average
		point31	31	2,407,031.8	728,804.8	2,444.00				Average
		point32	32	2,406,031.8	728,811.0	2,443.00				Average
		point33	33	2,405,031.8	728,816.3	2,442.00				Average
		point34	34	2,404,031.8	728,820.7	2,448.00				Average
		point35	35	2,403,031.8	728,826.7	2,445.00				Average
		point36	36	2,402,032.0	728,831.7	2,444.00				Average
		point37	37	2,401,032.0	728,841.6	2,442.00				Average
		point38	38	2,400,032.2	728,860.5	2,440.00				Average
		point39	39	2,399,032.2	728,855.7	2,437.00				Average
		point40	40	2,398,032.5	728,864.0	2,433.00				Average
		point41	41	2,397,032.5	728,873.9	2,432.00				
20_26 EB-Middleton to Midland	12.0	point68	68	2,396,578.5	728,857.4	2,435.00				Average
		point69	69	2,397,578.5	728,852.8	2,436.00				Average
		point70	70	2,398,578.5	728,846.7	2,438.00				Average
		point71	71	2,399,578.2	728,839.7	2,440.00				Average
		point72	72	2,400,578.2	728,831.0	2,440.00				Average
		point73	73	2,401,578.2	728,825.2	2,444.00				Average
		point74	74	2,402,578.2	728,817.1	2,444.00				Average
		point75	75	2,403,578.2	728,809.9	2,445.00				Average
		point76	76	2,404,578.2	728,803.4	2,448.00				Average
		point77	77	2,405,578.2	728,800.8	2,442.00				Average
		point78	78	2,406,578.0	728,796.1	2,440.00				Average
		point79	79	2,407,578.0	728,786.4	2,442.00				Average
		point80	80	2,408,578.0	728,773.8	2,448.00				Average
		point81	81	2,409,578.0	728,758.8	2,450.00				Average
		point82	82	2,410,577.8	728,745.3	2,458.00				Average
		point83	83	2,411,577.5	728,729.8	2,468.00				Average
		point84	84	2,412,577.5	728,710.0	2,474.00				Average
		point85	85	2,413,577.5	728,702.9	2,476.00				Average
		point86	86	2,414,577.2	728,689.7	2,478.00				Average
		point87	87	2,415,577.2	728,677.1	2,479.00				Average
		point88	88	2,416,577.0	728,663.8	2,480.00				Average
		point89	89	2,417,577.0	728,652.8	2,482.00				Average

		point90	90	2,418,577.0	728,639.0	2,485.00				Average
		point91	91	2,419,576.8	728,628.2	2,490.00				Average
		point92	92	2,420,576.8	728,616.7	2,492.00				Average
		point93	93	2,421,576.8	728,611.8	2,496.00				Average
		point94	94	2,422,576.5	728,606.2	2,498.00				Average
		point95	95	2,423,576.5	728,598.3	2,500.00				Average
		point96	10	2,424,576.5	728,581.2	2,504.00				Average
		point97	97	2,425,576.2	728,564.0	2,506.00				Average
		point98	98	2,426,576.2	728,550.1	2,510.00				Average
		point99	99	2,427,576.0	728,535.1	2,512.00				Average
		point100	100	2,428,576.0	728,520.9	2,514.00				Average
		point101	101	2,429,574.8	728,503.3	2,510.00				Average
		point102	102	2,430,574.8	728,490.5	2,524.00				Average
		point103	103	2,431,574.5	728,478.5	2,525.00				Average
		point104	104	2,432,574.5	728,465.1	2,527.00				Average
		point105	105	2,433,574.5	728,448.7	2,530.00				Average
		point106	106	2,434,574.5	728,445.0	2,532.00				Average
		point107	107	2,435,574.2	728,432.7	2,533.00				Average
		point108	108	2,436,574.2	728,424.1	2,534.00				Average
		point109	109	2,437,574.2	728,413.4	2,536.00				
NB KCID Rd-South of 20_26	12.0	point111	111	2,391,325.0	727,848.5	2,422.00				Average
		point110	110	2,391,341.0	728,849.0	2,422.00				
SB KCID Rd- South of 20_26	12.0	point112	112	2,391,318.5	728,848.4	2,422.00				Average
		point113	113	2,391,305.5	727,848.5	2,422.00				
SB Middleton Rd-North of 20_26	12.0	point115	115	2,396,550.0	730,150.0	2,432.00				Average
		point114	114	2,396,542.2	728,895.4	2,430.00				
NB Middleton Rd-south of 20_26	12.0	point117	117	2,396,555.8	727,521.8	2,432.00				Average
		point116	116	2,396,562.5	728,839.1	2,428.00				
NB Midland_ south of 20_26	12.0	point119	119	2,401,836.0	727,517.3	2,444.00				Average
		point118	118	2,401,835.0	728,809.8	2,444.00				
SB Midland_ north of 20_26	12.0	point120	120	2,401,847.5	730,068.5	2,444.00				Average
		point121	121	2,401,827.0	728,857.0	2,444.00				
20_26 EB Mainline to Middleton Road	12.0	point122	122	2,382,579.2	728,817.9	2,418.00				Average
		point123	123	2,386,578.8	728,841.5	2,418.00				Average
		point124	124	2,387,578.8	728,843.3	2,418.00				Average
		point125	125	2,388,578.8	728,848.0	2,420.00				Average
		point126	126	2,389,578.5	728,857.8	2,422.00				Average
		point127	127	2,390,578.5	728,867.6	2,420.00				Average

		point128	128	2,391,578.5	728,874.4	2,425.00			Average	
		point129	129	2,392,578.5	728,871.1	2,428.00			Average	
		point130	130	2,393,578.5	728,869.8	2,430.00			Average	
		point133	133	2,394,578.5	728,867.6	2,431.00			Average	
		point131	131	2,395,578.5	728,862.2	2,433.00			Average	
		point132	132	2,396,578.5	728,857.4	2,435.00				
20_2 WB KCID to Middleton Rd	12.0	point134	134	2,397,032.5	728,873.9	2,432.00			Average	
		point135	135	2,396,032.5	728,877.5	2,432.00			Average	
		point136	136	2,395,032.5	728,878.0	2,431.00			Average	
		point137	137	2,394,032.5	728,881.0	2,430.00			Average	
		point138	138	2,393,032.5	728,882.7	2,430.00			Average	
		point139	139	2,392,032.5	728,885.9	2,428.00			Average	
		point140	140	2,391,032.5	728,884.4	2,420.00			Average	
		point141	141	2,390,032.5	728,874.8	2,422.00			Average	
		point142	142	2,389,032.5	728,866.5	2,420.00			Average	
		point143	143	2,388,032.8	728,859.2	2,419.00			Average	
		point144	144	2,387,032.8	728,855.4	2,417.00			Average	
		point145	145	2,382,032.8	728,851.3	2,416.00				
SB Middleton Rd- south of 20_26	12.0	point146	146	2,396,535.0	728,828.0	2,432.00			Average	
		point147	147	2,396,535.0	727,521.8	2,430.00				
NB Middleton Rd-north of 20_26	12.0	point148	148	2,396,570.0	728,895.4	2,432.00			Average	
		point149	149	2,396,555.8	730,156.3	2,428.00				
NB Midland _north of 20_26	12.0	point151	151	2,401,836.0	728,857.0	2,444.00			Average	
		point150	150	2,401,849.5	730,068.5	2,444.00				
SB Midland_ south of 20_26	12.0	point152	152	2,401,825.0	728,809.8	2,444.00			Average	
		point153	153	2,401,822.0	727,517.3	2,444.00				

AXIOM POINTS
kari Frederick

10 July 2015
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 3

Roadway	Points		Segment									
Name	Name	No.	Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
20_26 WB Midland to Middleton	point1	1	482	55	39	55	22	55	6	55	6	55
	point2	2	482	55	39	55	22	55	6	55	6	55
	point3	3	482	55	39	55	22	55	6	55	6	55
	point4	4	482	55	39	55	22	55	6	55	6	55
	point5	5	482	55	39	55	22	55	6	55	6	55
	point6	6	482	55	39	55	22	55	6	55	6	55
	point7	7	482	55	39	55	22	55	6	55	6	55
	point8	8	482	55	39	55	22	55	6	55	6	55
	point9	9	482	55	39	55	22	55	6	55	6	55
	point10	10	482	55	39	55	22	55	6	55	6	55
	point11	11	482	55	39	55	22	55	6	55	6	55
	point12	12	482	55	39	55	22	55	6	55	6	55
	point13	13	482	55	39	55	22	55	6	55	6	55
	point14	14	482	55	39	55	22	55	6	55	6	55
	point15	15	482	55	39	55	22	55	6	55	6	55
	point16	16	482	55	39	55	22	55	6	55	6	55
	point17	17	482	55	39	55	22	55	6	55	6	55
	point18	18	482	55	39	55	22	55	6	55	6	55
	point19	19	482	55	39	55	22	55	6	55	6	55
	point20	20	482	55	39	55	22	55	6	55	6	55
	point21	21	482	55	39	55	22	55	6	55	6	55
	point22	22	482	55	39	55	22	55	6	55	6	55

	point23	23	482	55	39	55	22	55	6	55	6	55
	point24	24	482	55	39	55	22	55	6	55	6	55
	point25	25	482	55	39	55	22	55	6	55	6	55
	point26	26	482	55	39	55	22	55	6	55	6	55
	point27	27	482	55	39	55	22	55	6	55	6	55
	point28	28	482	55	39	55	22	55	6	55	6	55
	point29	29	482	55	39	55	22	55	6	55	6	55
	point30	30	482	55	39	55	22	55	6	55	6	55
	point31	31	482	55	39	55	22	55	6	55	6	55
	point32	32	482	55	39	55	22	55	6	55	6	55
	point33	33	482	55	39	55	22	55	6	55	6	55
	point34	34	482	55	39	55	22	55	6	55	6	55
	point35	35	482	55	39	55	22	55	6	55	6	55
	point36	36	482	55	39	55	22	55	6	55	6	55
	point37	37	482	55	39	55	22	55	6	55	6	55
	point38	38	482	55	39	55	22	55	6	55	6	55
	point39	39	482	55	39	55	22	55	6	55	6	55
	point40	40	482	55	39	55	22	55	6	55	6	55
	point41	41										
20_26 EB-Middleton to Midland	point68	68	380	55	31	55	17	55	4	55	4	55
	point69	69	380	55	31	55	17	55	4	55	4	55
	point70	70	380	55	31	55	17	55	4	55	4	55
	point71	71	380	55	31	55	17	55	4	55	4	55
	point72	72	380	55	31	55	17	55	4	55	4	55
	point73	73	380	55	31	55	17	55	4	55	4	55
	point74	74	380	55	31	55	17	55	4	55	4	55
	point75	75	380	55	31	55	17	55	4	55	4	55
	point76	76	380	55	31	55	17	55	4	55	4	55
	point77	77	380	55	31	55	17	55	4	55	4	55
	point78	78	380	55	31	55	17	55	4	55	4	55
	point79	79	380	55	31	55	17	55	4	55	4	55
	point80	80	380	55	31	55	17	55	4	55	4	55
	point81	81	380	55	31	55	17	55	4	55	4	55
	point82	82	380	55	31	55	17	55	4	55	4	55

	point83	83	380	55	31	55	17	55	4	55	4	55
	point84	84	380	55	31	55	17	55	4	55	4	55
	point85	85	380	55	31	55	17	55	4	55	4	55
	point86	86	380	55	31	55	17	55	4	55	4	55
	point87	87	380	55	31	55	17	55	4	55	4	55
	point88	88	380	55	31	55	17	55	4	55	4	55
	point89	89	380	55	31	55	17	55	4	55	4	55
	point90	90	380	55	31	55	17	55	4	55	4	55
	point91	91	380	55	31	55	17	55	4	55	4	55
	point92	92	380	55	31	55	17	55	4	55	4	55
	point93	93	380	55	31	55	17	55	4	55	4	55
	point94	94	380	55	31	55	17	55	4	55	4	55
	point95	95	380	55	31	55	17	55	4	55	4	55
	point96	96	380	55	31	55	17	55	4	55	4	55
	point97	97	380	55	31	55	17	55	4	55	4	55
	point98	98	380	55	31	55	17	55	4	55	4	55
	point99	99	380	55	31	55	17	55	4	55	4	55
	point100	100	380	55	31	55	17	55	4	55	4	55
	point101	101	380	55	31	55	17	55	4	55	4	55
	point102	102	380	55	31	55	17	55	4	55	4	55
	point103	103	380	55	31	55	17	55	4	55	4	55
	point104	104	380	55	31	55	17	55	4	55	4	55
	point105	105	380	55	31	55	17	55	4	55	4	55
	point106	106	380	55	31	55	17	55	4	55	4	55
	point107	107	380	55	31	55	17	55	4	55	4	55
	point108	108	380	55	31	55	17	55	4	55	4	55
	point109	109										
NB KCID Rd-South of 20_26	point111	111	61	45	3	45	2	45	0	0	0	0
	point110	110										
SB KCID Rd- South of 20_26	point112	112	88	45	5	45	3	45	0	0	0	0
	point113	113										
SB Middleton Rd-North of 20_26	point115	115	287	50	16	50	9	50	0	0	0	0
	point114	114										
NB Middleton Rd-south of 20_26	point117	117	362	50	20	50	12	50	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point116	116										
NB Midland_ south of 20_26	point119	119	13	45	1	45	0	0	0	0	0	0
	point118	118										
SB Midland_ north of 20_26	point120	120	6	50	0	0	0	0	0	0	0	0
	point121	121										
20_26 EB Mainline to Middleton Road	point122	122	343	55	28	55	16	55	4	55	4	55
	point123	123	343	55	28	55	16	55	4	55	4	55
	point124	124	343	55	28	55	16	55	4	55	4	55
	point125	125	343	55	28	55	16	55	4	55	4	55
	point126	126	343	55	28	55	16	55	4	55	4	55
	point127	127	343	55	28	55	16	55	4	55	4	55
	point128	128	343	55	28	55	16	55	4	55	4	55
	point129	129	343	55	28	55	16	55	4	55	4	55
	point130	130	343	55	28	55	16	55	4	55	4	55
	point133	133	343	55	28	55	16	55	4	55	4	55
	point131	131	343	55	28	55	16	55	4	55	4	55
	point132	132										
20_2 WB KCID to Middleton Rd	point134	134	310	55	25	55	18	55	0	0	0	0
	point135	135	310	55	25	55	18	55	0	0	0	0
	point136	136	310	55	25	55	18	55	0	0	0	0
	point137	137	310	55	25	55	18	55	0	0	0	0
	point138	138	310	55	25	55	18	55	0	0	0	0
	point139	139	310	55	25	55	18	55	0	0	0	0
	point140	140	310	55	25	55	18	55	0	0	0	0
	point141	141	310	55	25	55	18	55	0	0	0	0
	point142	142	310	55	25	55	18	55	0	0	0	0
	point143	143	310	55	25	55	18	55	0	0	0	0
	point144	144	310	55	25	55	18	55	0	0	0	0
	point145	145										
SB Middleton Rd- south of 20_26	point146	146	349	50	19	50	11	50	0	0	0	0
	point147	147										
NB Middleton Rd-north of 20_26	point148	148	458	50	25	50	15	50	0	0	0	0
	point149	149										
NB Midland _north of 20_26	point151	151	16	50	1	50	1	50	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point150	150										
SB Midland_ south of 20_26	point152	152	27	45	1	45	1	45	0	0	0	0
	point153	153										

RESULTS: SOUND LEVELS

20_26 Corridor Study

AXIOM POINTS
Kari Frederick

8 July 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: No Build 1
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	No Barrier LAeq1h Crit'n	Increase over existing Calculated	Increase over existing Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Noise Reduction Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
147	1	1	62.3	65.7	66	3.4	10	----	65.7	0.0	7	-7.0
145	2	1	62.9	63.4	66	0.5	10	----	63.4	0.0	7	-7.0
143	3	1	60.0	60.4	66	0.4	10	----	60.4	0.0	7	-7.0
140	4	1	60.4	60.8	66	0.4	10	----	60.8	0.0	7	-7.0
139	5	1	61.6	62.3	66	0.7	10	----	62.3	0.0	7	-7.0
134	6	1	57.3	58.0	66	0.7	10	----	58.0	0.0	7	-7.0
127	7	1	56.3	60.0	66	3.7	10	----	60.0	0.0	7	-7.0
146	8	1	62.2	63.9	66	1.7	10	----	63.9	0.0	7	-7.0
144	9	1	61.9	63.5	66	1.6	10	----	63.5	0.0	7	-7.0
142	11	1	58.2	61.0	66	2.8	10	----	61.0	0.0	7	-7.0
141	12	1	57.8	56.9	66	-0.9	10	----	56.9	0.0	7	-7.0
138	13	1	65.3	63.2	66	-2.1	10	----	63.2	0.0	7	-7.0
137	14	1	64.0	64.3	66	0.3	10	----	64.3	0.0	7	-7.0
136	15	1	65.9	65.0	66	-0.9	10	----	65.0	0.0	7	-7.0
135	16	1	64.4	62.3	66	-2.1	10	----	62.3	0.0	7	-7.0
133	17	1	66.5	66.9	66	0.4	10	Snd Lvl	66.9	0.0	7	-7.0
131	18	1	65.4	65.7	66	0.3	10	----	65.7	0.0	7	-7.0
115	19	1	63.0	63.4	66	0.4	10	----	63.4	0.0	7	-7.0
126	20	1	61.0	62.9	66	1.9	10	----	62.9	0.0	7	-7.0
121	22	1	54.9	67.9	66	13.0	10	Both	67.9	0.0	7	-7.0
116	25	1	50.3	53.7	66	3.4	10	----	53.7	0.0	7	-7.0
128	26	1	53.1	57.5	66	4.4	10	----	57.5	0.0	7	-7.0
125	28	1	64.6	67.0	66	2.4	10	Snd Lvl	67.0	0.0	7	-7.0

117	29	1	61.5	64.2	66	2.7	10	----	64.2	0.0	7	-7.0
114	30	1	57.9	64.7	66	6.8	10	----	64.7	0.0	7	-7.0
113	31	1	61.7	63.6	66	1.9	10	----	63.6	0.0	7	-7.0
105	36	1	61.8	64.8	66	3.0	10	----	64.8	0.0	7	-7.0
107	37	1	60.2	69.4	66	9.2	10	Snd Lvl	69.4	0.0	7	-7.0
98	38	1	60.2	63.0	66	2.8	10	----	63.0	0.0	7	-7.0
104	40	1	53.0	56.3	66	3.3	10	----	56.3	0.0	7	-7.0
103	41	1	63.0	65.7	66	2.7	10	----	65.7	0.0	7	-7.0
99	42	1	63.0	65.9	66	2.9	10	----	65.9	0.0	7	-7.0
97	44	1	56.4	53.8	66	-2.6	10	----	53.8	0.0	7	-7.0
91	55	1	59.0	58.6	66	-0.4	10	----	58.6	0.0	7	-7.0
89	56	1	65.4	59.3	66	-6.1	10	----	59.3	0.0	7	-7.0
86	57	1	64.1	68.2	66	4.1	10	Snd Lvl	68.2	0.0	7	-7.0
148	63	1	50.6	65.8	66	15.2	10	Sub'l Inc	65.8	0.0	7	-7.0
132	65	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	5	-5.0
130	67	1	0.0	57.4	66	57.4	10	----	57.4	0.0	5	-5.0
129	68	1	0.0	55.4	66	55.4	10	----	55.4	0.0	5	-5.0
124	69	1	0.0	63.9	66	63.9	10	----	63.9	0.0	5	-5.0
122	70	1	0.0	64.6	66	64.6	10	----	64.6	0.0	5	-5.0
120	71	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	5	-5.0
119	72	1	0.0	63.4	66	63.4	10	----	63.4	0.0	5	-5.0
118	73	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	5	-5.0
106	74	1	0.0	63.0	66	63.0	10	----	63.0	0.0	5	-5.0
100	75	1	0.0	65.3	66	65.3	10	----	65.3	0.0	5	-5.0
101	76	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	5	-5.0
102	77	1	0.0	62.0	66	62.0	10	----	62.0	0.0	5	-5.0
96	81	1	0.0	59.3	66	59.3	10	----	59.3	0.0	5	-5.0
95	82	1	0.0	55.8	66	55.8	10	----	55.8	0.0	5	-5.0
94	83	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	5	-5.0
93	84	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	5	-5.0
92	85	1	0.0	65.7	66	65.7	10	----	65.7	0.0	5	-5.0
88	86	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	5	-5.0
87	88	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	5	-5.0
108	89	1	0.0	68.9	66	68.9	10	Snd Lvl	68.9	0.0	5	-5.0
109	90	1	0.0	62.6	66	62.6	10	----	62.6	0.0	5	-5.0
111	91	1	0.0	61.7	66	61.7	10	----	61.7	0.0	5	-5.0
110	92	1	0.0	64.1	66	64.1	10	----	64.1	0.0	5	-5.0
112	95	1	0.0	60.6	66	60.6	10	----	60.6	0.0	5	-5.0
90	100	1	0.0	63.8	66	63.8	10	----	63.8	0.0	5	-5.0
84	102	1	0.0	63.4	66	63.4	10	----	63.4	0.0	5	-5.0
85	104	1	0.0	72.6	66	72.6	10	Snd Lvl	72.6	0.0	5	-5.0

RESULTS: SOUND LEVELS **20_26 Corridor Study**

123	106	1	0.0	64.8	66	64.8	10	---	64.8	0.0	5	-5.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	65	0.0	0.0	0.0
All Impacted	16	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

RESULTS: SOUND LEVELS

20_26 Corridor

AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor
RUN: no build 2
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
83	4	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
81	5	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
80	6	1	0.0	71.5	66	71.5	10	Snd Lvl	71.5	0.0	8	-8.0
82	9	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
79	11	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
75	13	1	0.0	67.1	66	67.1	10	Snd Lvl	67.1	0.0	8	-8.0
73	14	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
78	15	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
77	16	1	0.0	69.3	66	69.3	10	Snd Lvl	69.3	0.0	8	-8.0
74	17	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
72	18	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0
71	19	1	0.0	67.3	66	67.3	10	Snd Lvl	67.3	0.0	8	-8.0
69	20	1	0.0	70.2	66	70.2	10	Snd Lvl	70.2	0.0	8	-8.0
70	22	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	8	-8.0
68	23	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
67	24	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
64	25	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
62	27	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
60	28	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
65	29	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
59	31	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	8	-8.0
57	32	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
55	33	1	0.0	65.7	66	65.7	10	----	65.7	0.0	8	-8.0

RESULTS: SOUND LEVELS **20_26 Corridor**

52	34	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
53	35	1	0.0	68.2	66	68.2	10	Snd Lvl	68.2	0.0	8	-8.0
51	36	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
58	37	1	0.0	69.1	66	69.1	10	Snd Lvl	69.1	0.0	8	-8.0
49	38	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
48	39	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
46	40	1	0.0	63.8	66	63.8	10	----	63.8	0.0	8	-8.0
47	41	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
66	69	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
63	70	1	0.0	68.0	66	68.0	10	Snd Lvl	68.0	0.0	8	-8.0
61	71	1	0.0	66.6	66	66.6	10	Snd Lvl	66.6	0.0	8	-8.0
56	74	1	0.0	60.8	66	60.8	10	----	60.8	0.0	8	-8.0
54	75	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
76	77	1	0.0	62.9	66	62.9	10	----	62.9	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	37	0.0	0.0	0.0
All Impacted	25	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

RESULTS: SOUND LEVELS 20_26 Corridor Study

AXIOM POINTS
kari Frederick

8 July 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 3
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
41	1	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
38	2	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
43	4	1	0.0	59.0	66	59.0	10	----	59.0	0.0	8	-8.0
40	5	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
39	6	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
33	7	1	0.0	65.9	66	65.9	10	----	65.9	0.0	8	-8.0
31	8	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
30	9	1	0.0	64.7	66	64.7	10	----	64.7	0.0	8	-8.0
28	10	1	0.0	64.0	66	64.0	10	----	64.0	0.0	8	-8.0
35	11	1	0.0	65.8	66	65.8	10	----	65.8	0.0	8	-8.0
34	12	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
32	13	1	0.0	58.9	66	58.9	10	----	58.9	0.0	8	-8.0
29	14	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
26	15	1	0.0	63.2	66	63.2	10	----	63.2	0.0	8	-8.0
24	17	1	0.0	63.0	66	63.0	10	----	63.0	0.0	8	-8.0
23	18	1	0.0	62.3	66	62.3	10	----	62.3	0.0	8	-8.0
22	19	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
18	20	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
15	21	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
27	22	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
25	25	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
21	26	1	0.0	63.3	66	63.3	10	----	63.3	0.0	8	-8.0
16	27	1	0.0	59.8	66	59.8	10	----	59.8	0.0	8	-8.0

RESULTS: SOUND LEVELS **20_26 Corridor Study**

14	28	1	0.0	61.1	66	61.1	10	----	61.1	0.0	8	-8.0
13	29	1	0.0	66.9	66	66.9	10	Snd Lvl	66.9	0.0	8	-8.0
12	30	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0
37	68	1	0.0	63.5	66	63.5	10	----	63.5	0.0	8	-8.0
20	69	1	0.0	59.0	66	59.0	10	----	59.0	0.0	8	-8.0
19	70	1	0.0	59.2	66	59.2	10	----	59.2	0.0	8	-8.0
10	71	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
9	72	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
11	73	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	8	-8.0
8	74	1	0.0	71.3	66	71.3	10	Snd Lvl	71.3	0.0	8	-8.0
7	75	1	0.0	58.4	66	58.4	10	----	58.4	0.0	8	-8.0
6	76	1	0.0	64.1	66	64.1	10	----	64.1	0.0	8	-8.0
5	77	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
4	78	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
3	79	1	0.0	60.2	66	60.2	10	----	60.2	0.0	8	-8.0
2	80	1	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	8	-8.0
1	81	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
44	85	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0
17	87	1	0.0	58.6	66	58.6	10	----	58.6	0.0	8	-8.0
42	88	1	0.0	58.6	66	58.6	10	----	58.6	0.0	8	-8.0
36	90	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0
45	92	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	45	0.0	0.0	0.0
All Impacted	14	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

RESULTS: SOUND LEVELS

20_26 Corridor Study

AXIOM POINTS
Kari Frederick

7 July 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Build 1with Berms
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
148	1	2	0.0	71.5	66	71.5	10	Snd Lvl	71.5	0.0	7	-7.0
147	2	2	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	7	-7.0
145	3	3	0.0	68.7	66	68.7	10	Snd Lvl	68.7	0.0	7	-7.0
146	4	3	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	7	-7.0
144	5	3	0.0	67.9	66	67.9	10	Snd Lvl	67.9	0.0	7	-7.0
142	6	9	0.0	62.6	66	62.6	10	----	62.6	0.0	7	-7.0
143	7	4	0.0	64.5	66	64.5	10	----	64.5	0.0	7	-7.0
140	8	5	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	7	-7.0
141	9	5	0.0	62.1	66	62.1	10	----	62.1	0.0	7	-7.0
138	10	3	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	7	-7.0
139	11	3	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	7	-7.0
137	12	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	7	-7.0
136	13	7	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	7	-7.0
135	17	1	0.0	69.9	66	69.9	10	Snd Lvl	69.9	0.0	7	-7.0
134	18	1	0.0	64.6	66	64.6	10	----	64.6	0.0	7	-7.0
133	19	1	0.0	67.7	66	67.7	10	Snd Lvl	67.7	0.0	7	-7.0
132	20	2	0.0	75.8	66	75.8	10	Snd Lvl	75.8	0.0	7	-7.0
127	21	9	0.0	63.5	66	63.5	10	----	63.5	0.0	7	-7.0
131	23	5	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	7	-7.0
130	24	6	0.0	58.1	66	58.1	10	----	58.1	0.0	7	-7.0
129	25	10	0.0	60.7	66	60.7	10	----	60.7	0.0	7	-7.0
128	26	1	0.0	62.6	66	62.6	10	----	62.6	0.0	7	-7.0
126	27	7	0.0	65.7	66	65.7	10	----	65.7	0.0	7	-7.0

RESULTS: SOUND LEVELS **20_26 Corridor Study**

125	28	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	7	-7.0
124	29	1	0.0	62.9	66	62.9	10	----	62.9	0.0	7	-7.0
122	30	1	0.0	66.5	66	66.5	10	Snd Lvl	66.5	0.0	7	-7.0
123	31	1	0.0	62.4	66	62.4	10	----	62.4	0.0	7	-7.0
121	32	2	0.0	74.8	66	74.8	10	Snd Lvl	74.8	0.0	7	-7.0
120	33	1	0.0	72.4	66	72.4	10	Snd Lvl	72.4	0.0	7	-7.0
119	34	1	0.0	64.7	66	64.7	10	----	64.7	0.0	7	-7.0
118	35	4	0.0	73.7	66	73.7	10	Snd Lvl	73.7	0.0	7	-7.0
116	39	1	0.0	62.2	66	62.2	10	----	62.2	0.0	7	-7.0
115	40	26	0.0	64.0	66	64.0	10	----	64.0	0.0	7	-7.0
114	44	1	56.4	67.2	66	10.8	10	Both	67.2	0.0	7	-7.0
113	69	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	7	-7.0
112	72	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	7	-7.0
117	73	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	7	-7.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	136	0.0	0.0	0.0
All Impacted	54	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

123	85	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0
141a	87	1	0.0	62.1	66	62.1	10	----	62.1	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	66	0.0	0.0	0.0
All Impacted	9	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

C52a

C52b

AXIOM POINTS
kari Frederick

1 December 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: build 3
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
27	1	1	0.0	66.8	66	66.8	10	Snd Lvl	66.8	0.0	8	-8.0
26	2	1	0.0	70.8	66	70.8	10	Snd Lvl	70.8	0.0	8	-8.0
24	4	1	0.0	60.0	66	60.0	10	----	60.0	0.0	8	-8.0
23	5	1	0.0	59.0	66	59.0	10	----	59.0	0.0	8	-8.0
22	7	1	0.0	59.1	66	59.1	10	----	59.1	0.0	8	-8.0
21	8	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
20	9	1	0.0	66.3	66	66.3	10	Snd Lvl	66.3	0.0	8	-8.0
19	10	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
18	11	1	0.0	59.0	66	59.0	10	----	59.0	0.0	8	-8.0
17	12	1	0.0	58.9	66	58.9	10	----	58.9	0.0	8	-8.0
15	13	1	0.0	66.0	66	66.0	10	Snd Lvl	66.0	0.0	8	-8.0
16	14	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
14	15	1	0.0	61.0	66	61.0	10	----	61.0	0.0	8	-8.0
13	16	1	0.0	68.8	66	68.8	10	Snd Lvl	68.8	0.0	8	-8.0
12	17	1	0.0	69.0	66	69.0	10	Snd Lvl	69.0	0.0	8	-8.0
10	18	1	0.0	68.6	66	68.6	10	Snd Lvl	68.6	0.0	8	-8.0
9	19	1	0.0	70.4	66	70.4	10	Snd Lvl	70.4	0.0	8	-8.0
11	20	1	0.0	70.0	66	70.0	10	Snd Lvl	70.0	0.0	8	-8.0
8	21	1	0.0	69.4	66	69.4	10	Snd Lvl	69.4	0.0	8	-8.0
7	22	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
6	24	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
5	25	1	0.0	68.7	66	68.7	10	Snd Lvl	68.7	0.0	8	-8.0
4	26	1	0.0	70.3	66	70.3	10	Snd Lvl	70.3	0.0	8	-8.0

C53

AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Build 1with Berms

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points					Flow Control			Segment	
Name	Width	Name	No.	Coordinates (pavement) X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Eagle Rd SB 1	12.0	point56	13	2,465,158.5	729,600.7	2,620.00				Average	
		point57	14	2,465,140.2	728,600.9	2,620.00				Average	
		point58	15	2,465,149.8	727,601.1	2,618.00					
Eagle Rd SB 2	12.0	point59	16	2,465,172.8	729,594.7	2,620.00				Average	
		point60	17	2,465,154.5	728,594.9	2,620.00				Average	
		point61	18	2,465,163.8	727,595.3	2,620.00					
Eagle RD NB 1	12.0	point62	19	2,465,245.2	726,907.5	2,620.00				Average	
		point63	20	2,465,195.5	727,901.9	2,620.00				Average	
		point64	21	2,465,200.2	728,901.9	2,620.00					
Eagle Rd NB 2	12.0	point65	22	2,465,222.2	726,908.4	2,618.00				Average	
		point66	23	2,465,180.0	727,907.4	2,620.00				Average	
		point67	24	2,465,189.0	728,907.4	2,618.00					
Locust Grove NB_north of 20_26	12.0	point69	25	2,459,882.2	728,300.0	2,602.00				Average	
		point68	26	2,459,880.0	728,903.9	2,604.00					
Locust Grove NB-south of 20_26	12.0	point72	29	2,459,862.0	728,055.0	2,602.00				Average	
		point71	28	2,459,861.2	727,500.0	2,604.00				Average	
		point70	27	2,459,855.0	727,173.7	2,604.00					
Meridian SB north of 20_26	12.0	point73	30	2,454,801.8	728,300.0	2,588.00				Average	
		point74	31	2,454,808.2	729,221.2	2,588.00					
Meridian NB-south of 20_26	12.0	point75	32	2,454,822.2	728,158.5	2,588.00				Average	
		point76	33	2,454,836.8	727,125.0	2,588.00					
Meridian NB- north of 20_26	12.0	point118	59	2,454,830.8	729,221.2	2,588.00				Average	
		point117	60	2,454,808.2	728,300.0	2,588.00					
Meridian SB- south of 20_26	12.0	point120	62	2,454,820.5	728,158.5	2,588.00				Average	
		point119	63	2,454,811.5	727,119.0	2,588.00					

INPUT: ROADWAYS **20_26 Corridor Study**

Locust Grove SB-north of 20_26	12.0	point122	64	2,459,867.8	728,903.9	2,604.00				Average	
		point123	65	2,459,861.2	728,300.0	2,602.00					
Locust Grove SB-south of 20_26	12.0	point124	66	2,459,867.8	727,173.7	2,604.00				Average	
		point125	67	2,459,882.2	728,067.0	2,604.00					
WB 1 Main Eagle Road to Locust Grove	12.0	point938	938	2,465,030.5	728,245.4	2,620.00				Average	
		point939	939	2,464,700.5	728,248.1	2,618.00				Average	
		point940	940	2,464,300.5	728,250.0	2,616.00				Average	
		point941	941	2,463,900.5	728,251.6	2,616.00				Average	
		point942	942	2,463,500.5	728,252.9	2,615.00				Average	
		point943	943	2,463,100.5	728,254.0	2,615.00				Average	
		point944	944	2,462,700.5	728,255.3	2,617.00				Average	
		point945	945	2,462,300.5	728,256.8	2,618.00				Average	
		point946	946	2,461,900.5	728,258.5	2,618.00				Average	
		point947	947	2,461,500.5	728,260.4	2,618.00				Average	
		point948	948	2,461,100.5	728,256.5	2,618.00				Average	
		point949	949	2,460,700.8	728,249.0	2,615.00				Average	
		point950	950	2,460,300.8	728,251.2	2,614.00					
WB Eagle to Locust Grove 2	12.0	point1062	1062	2,465,030.5	728,233.8	2,620.00				Average	
		point1063	1063	2,464,705.5	728,235.5	2,618.00				Average	
		point1064	1064	2,464,305.5	728,237.2	2,616.00				Average	
		point1065	1065	2,463,905.5	728,239.1	2,616.00				Average	
		point1066	1066	2,463,505.5	728,240.9	2,614.00				Average	
		point1067	1067	2,463,105.5	728,241.9	2,612.00				Average	
		point1069	1069	2,462,705.5	728,242.7	2,613.00				Average	
		point1070	1070	2,462,305.5	728,245.4	2,614.00				Average	
		point1071	1071	2,461,905.5	728,246.8	2,615.00				Average	
		point1072	1072	2,461,505.5	728,248.2	2,615.00				Average	
		point1073	1073	2,461,105.5	728,244.3	2,614.00				Average	
		point1074	1074	2,460,705.5	728,237.3	2,615.00				Average	
		point1075	1075	2,460,305.8	728,238.5	2,615.00					
WB Eagle to Locust Grove 3	12.0	point1145	1145	2,465,096.5	728,222.2	2,618.00				Average	
		point1146	1146	2,464,696.5	728,224.5	2,618.00				Average	
		point1147	1147	2,464,296.5	728,226.8	2,616.00				Average	
		point1148	1148	2,463,896.5	728,226.4	2,616.00				Average	
		point1149	1149	2,463,496.5	728,228.0	2,614.00				Average	
		point1150	1150	2,463,096.5	728,229.6	2,612.00				Average	
		point1152	1152	2,462,696.5	728,231.2	2,613.00				Average	
		point1153	1153	2,462,296.5	728,232.9	2,614.00				Average	

INPUT: ROADWAYS **20_26 Corridor Study**

		point1154	1154	2,461,896.5	728,234.9	2,615.00				Average	
		point1155	1155	2,461,496.5	728,236.0	2,615.00				Average	
		point1156	1156	2,461,096.5	728,232.1	2,614.00				Average	
		point1157	1157	2,460,696.5	728,224.9	2,615.00				Average	
		point1158	1158	2,460,296.5	728,226.0	2,615.00					
EB Turn to Eagle NB	12.0	point1228	1228	2,464,543.8	728,197.4	2,618.00				Average	
		point1229	1229	2,464,693.8	728,196.5	2,618.00				Average	
		point1230	1230	2,464,843.8	728,195.6	2,618.00				Average	
		point1231	1231	2,464,993.8	728,194.7	2,618.00				Average	
		point1232	1232	2,465,102.2	728,194.1	2,618.00					
EB Turn to Eagle Road	12.0	point1233	1233	2,464,327.8	728,189.9	2,618.00				Average	
		point1234	1234	2,464,477.5	728,199.2	2,618.00				Average	
		point1235	1235	2,464,627.2	728,208.4	2,618.00				Average	
		point1236	1236	2,464,777.0	728,211.7	2,618.00				Average	
		point1237	1237	2,464,927.0	728,210.8	2,618.00				Average	
		point1238	1238	2,465,077.0	728,209.9	2,618.00					
WB Turn 2	12.0	point1245	1245	2,462,830.2	728,259.4	2,611.00				Average	
		point1246	1246	2,462,680.5	728,268.9	2,611.00				Average	
		point1247	1247	2,462,530.5	728,268.6	2,611.00					
EB Turn 3	12.0	point1257	1257	2,460,420.2	728,254.5	2,611.00				Average	
		point1253	1253	2,460,270.5	728,263.6	2,611.00				Average	
		point1254	1254	2,460,120.5	728,264.3	2,611.00				Average	
		point1256	1256	2,459,933.0	728,265.2	2,611.00					
WB CF 2 at Locust Grove	12.0	point1258	1258	2,460,984.5	728,224.7	2,611.00				Average	
		point1259	1259	2,460,835.0	728,210.8	2,611.00				Average	
		point1260	1260	2,460,685.5	728,200.1	2,611.00				Average	
		point1261	1261	2,460,535.5	728,201.5	2,611.00					
WB CF 1 at Locust Grove	12.0	point1266	1266	2,460,817.5	728,213.1	2,611.00				Average	
		point1267	1267	2,460,667.5	728,213.7	2,611.00				Average	
		point1268	1268	2,460,517.5	728,214.4	2,611.00				Average	
		point1269	1269	2,460,369.5	728,199.3	2,611.00					
EB Merge 1	12.0	point1275	1275	2,459,914.0	728,009.6	2,611.00				Average	
		point1276	1276	2,460,000.2	728,104.7	2,611.00				Average	
		point1277	1277	2,460,150.2	728,104.2	2,611.00				Average	
		point1282	1282	2,460,299.5	728,111.2	2,611.00				Average	
		point1278	1278	2,460,445.5	728,145.8	2,611.00				Average	
		point1279	1279	2,460,595.2	728,149.1	2,611.00				Average	
		point1280	1280	2,460,745.2	728,148.6	2,611.00				Average	

INPUT: ROADWAYS

20_26 Corridor Study

		point1281	1281	2,460,895.0	728,154.9	2,611.00					
EB Turn Locust Grove	12.0	point1295	1295	2,459,344.0	728,162.6	2,602.00				Average	
		point1296	1296	2,459,493.5	728,151.0	2,602.00				Average	
		point1297	1297	2,459,643.5	728,151.0	2,602.00				Average	
		point1298	1298	2,459,793.5	728,151.0	2,602.00				Average	
		point1299	1299	2,459,854.2	728,151.0	2,602.00					
EB CF 1	12.0	point1300	1300	2,459,013.0	728,197.4	2,611.00				Average	
		point1301	1301	2,459,162.8	728,203.3	2,611.00				Average	
		point1302	1302	2,459,312.8	728,201.7	2,611.00				Average	
		point1798	1798	2,459,332.8	728,208.6	2,611.00				Average	
		point1799	1799	2,459,352.5	728,215.4	2,611.00				Average	
		point1800	1800	2,459,372.5	728,222.3	2,611.00				Average	
		point1805	1805	2,459,382.5	728,225.8	2,611.00					
Locust Grove to 20_26 Turn Lane	12.0	point1749	1749	2,459,703.5	728,300.5	2,611.00				Average	
		point1310	1310	2,459,623.0	728,301.0	2,611.00				Average	
		point1311	1311	2,459,473.5	728,295.5	2,611.00				Average	
		point1750	1750	2,459,399.8	728,281.6	2,611.00					
WB Castlebury	12.0	point1323	1323	2,458,401.5	728,243.7	2,604.00				Average	
		point1324	1324	2,458,251.8	728,236.9	2,604.00				Average	
		point1325	1325	2,458,101.8	728,236.3	2,604.00				Average	
		point1326	1326	2,457,951.8	728,235.7	2,604.00				Average	
		point1327	1327	2,457,896.8	728,235.4	2,604.00					
WB Turn Castlebury	12.0	point1328	1328	2,458,214.5	728,278.4	2,606.00				Average	
		point1329	1329	2,458,064.8	728,285.5	2,606.00				Average	
		point1330	1330	2,457,914.8	728,288.1	2,606.00				Average	
		point1331	1331	2,457,896.0	728,288.4	2,606.00					
EB Turn Castlebury	12.0	point1797	1797	2,457,573.0	728,181.2	2,604.00				Average	
		point1340	1340	2,457,647.8	728,176.7	2,604.00				Average	
		point1341	1341	2,457,797.8	728,176.0	2,604.00				Average	
		point1343	1343	2,457,821.5	728,175.9	2,604.00					
EB Castlebury	12.0	point1344	1344	2,457,418.5	728,216.4	2,604.00				Average	
		point1345	1345	2,457,568.5	728,223.8	2,604.00				Average	
		point1347	1347	2,457,718.5	728,223.8	2,604.00				Average	
		point1349	1349	2,457,815.0	728,223.8	2,604.00					
EB Merge 2	12.0	point1354	1354	2,454,861.2	728,020.3	2,600.00				Average	
		point1355	1355	2,454,947.2	728,118.7	2,600.00				Average	
		point1356	1356	2,455,097.2	728,120.7	2,600.00				Average	
		point1357	1357	2,455,245.8	728,136.3	2,600.00				Average	

		point1358	1358	2,455,391.5	728,168.5	2,600.00				Average	
		point1359	1359	2,455,541.5	728,171.5	2,600.00				Average	
		point1360	1360	2,455,691.5	728,174.8	2,600.00				Average	
		point1361	1361	2,455,841.2	728,181.7	2,600.00					
WB CF 3	12.0	point1362	1362	2,455,855.0	728,248.7	2,600.00				Average	
		point1363	1363	2,455,705.8	728,232.3	2,600.00				Average	
		point1364	1364	2,455,556.2	728,224.5	2,600.00				Average	
		point1365	1365	2,455,406.2	728,221.5	2,600.00				Average	
		point1840	1840	2,455,370.5	728,214.0	2,600.00					
WB CF 4	12.0	point1371	1371	2,455,725.0	728,238.7	2,600.00				Average	
		point1372	1372	2,455,575.0	728,236.8	2,600.00				Average	
		point1373	1373	2,455,425.0	728,234.8	2,600.00				Average	
		point1374	1374	2,455,277.8	728,216.1	2,600.00					
WB Turn to Meridian NB	12.0	point1380	1380	2,455,361.0	728,275.1	2,600.00				Average	
		point1381	1381	2,455,211.0	728,279.3	2,600.00				Average	
		point1382	1382	2,455,061.0	728,277.5	2,600.00				Average	
		point1383	1383	2,454,911.0	728,275.7	2,600.00				Average	
		point1384	1384	2,454,861.2	728,275.1	2,600.00					
NB Turn 5	12.0	point1385	1385	2,454,850.5	728,024.5	2,600.00				Average	
		point1386	1386	2,454,851.5	728,174.5	2,600.00					
SB Turn 3	12.0	point1394	1394	2,454,841.5	728,410.0	2,600.00				Average	
		point1395	1395	2,454,840.2	728,260.2	2,600.00					
SB Turn Meridian to 2026	12.0	point1397	1397	2,454,829.0	728,411.7	2,600.00				Average	
		point1399	1399	2,454,827.8	728,261.9	2,600.00					
WB Merge 2	12.0	point1402	1402	2,454,719.5	728,307.3	2,593.00				Average	
		point1403	1403	2,454,569.5	728,304.7	2,593.00				Average	
		point1404	1404	2,454,420.0	728,296.8	2,593.00				Average	
		point1405	1405	2,454,273.0	728,271.0	2,593.00				Average	
		point1406	1406	2,454,123.0	728,271.9	2,593.00				Average	
		point1407	1407	2,453,973.0	728,273.9	2,593.00				Average	
		point1408	1408	2,453,881.0	728,275.1	2,593.00					
EB CF 2	12.0	point1409	1409	2,453,739.5	728,216.4	2,600.00				Average	
		point1410	1410	2,453,889.2	728,218.2	2,600.00				Average	
		point1411	1411	2,454,039.2	728,213.9	2,600.00				Average	
		point1412	1412	2,454,189.2	728,209.6	2,600.00				Average	
		point1413	1413	2,454,338.5	728,213.1	2,600.00				Average	
		point1811	1811	2,454,371.2	728,230.2	2,600.00					
EB Turn to Meridian	12.0	point1419	1419	2,454,345.0	728,166.8	2,593.00				Average	

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		point1420	1420	2,454,494.8	728,158.5	2,593.00				Average	
		point1421	1421	2,454,644.8	728,160.1	2,593.00					
WB fox run	12.0	point1424	1424	2,453,079.2	728,280.1	2,588.00				Average	
		point1425	1425	2,452,929.2	728,275.8	2,588.00				Average	
		point1426	1426	2,452,779.2	728,274.3	2,588.00				Average	
		point1427	1427	2,452,629.2	728,276.2	2,588.00				Average	
		point1428	1428	2,452,584.5	728,276.8	2,588.00					
WB Tfox run	12.0	point1429	1429	2,452,855.0	728,314.9	2,588.00				Average	
		point1430	1430	2,452,705.2	728,322.5	2,588.00				Average	
		point1432	1432	2,452,549.8	728,324.0	2,588.00					
EB Turn 8	12.0	point1443	1443	2,452,188.2	728,210.6	2,588.00				Average	
		point1444	1444	2,452,338.0	728,202.0	2,588.00				Average	
		point1445	1445	2,452,488.0	728,200.1	2,588.00				Average	
		point1446	1446	2,452,508.2	728,199.9	2,588.00					
EB fox run	12.0	point1447	1447	2,451,975.5	728,243.7	2,588.00				Average	
		point1448	1448	2,452,125.2	728,252.7	2,588.00				Average	
		point1449	1449	2,452,275.2	728,251.7	2,588.00				Average	
		point1450	1450	2,452,425.2	728,250.7	2,588.00				Average	
		point1451	1451	2,452,480.2	728,250.3	2,588.00					
WB 1 Locust Grove to Meridian	12.0	point1739	1739	2,460,391.8	728,251.2	2,608.00				Average	
		point951	951	2,459,900.8	728,252.8	2,606.00				Average	
		point952	952	2,459,500.8	728,254.5	2,605.00				Average	
		point953	953	2,459,100.8	728,255.9	2,605.00				Average	
		point954	954	2,458,700.8	728,264.8	2,605.00				Average	
		point955	955	2,458,301.0	728,273.1	2,604.00				Average	
		point956	956	2,457,901.0	728,275.4	2,604.00				Average	
		point957	957	2,457,501.0	728,276.8	2,604.00				Average	
		point958	958	2,457,101.0	728,277.9	2,602.00				Average	
		point959	959	2,456,701.0	728,278.4	2,602.00				Average	
		point960	960	2,456,301.0	728,278.4	2,602.00				Average	
		point961	961	2,455,901.0	728,277.2	2,600.00				Average	
		point962	962	2,455,501.0	728,271.9	2,602.00				Average	
		point963	963	2,455,101.0	728,266.8	2,602.00				Average	
		point1779	1779	2,455,001.0	728,265.7	2,602.00				Average	
		point1780	1780	2,454,901.0	728,264.6	2,600.00					
WB 2 Locust Grove to Meridian	12.0	point1740	1740	2,460,391.8	728,238.5	2,606.00				Average	
		point1076	1076	2,459,905.8	728,240.9	2,606.00				Average	
		point1077	1077	2,459,505.8	728,242.5	2,605.00				Average	

		point1078	1078	2,459,105.8	728,244.0	2,605.00				Average	
		point1079	1079	2,458,705.8	728,253.6	2,605.00				Average	
		point1080	1080	2,458,306.0	728,261.9	2,604.00				Average	
		point1081	1081	2,457,906.0	728,262.7	2,604.00				Average	
		point1082	1082	2,457,506.0	728,264.6	2,604.00				Average	
		point1083	1083	2,457,106.0	728,266.4	2,602.00				Average	
		point1084	1084	2,456,706.0	728,267.8	2,602.00				Average	
		point1085	1085	2,456,306.0	728,269.3	2,602.00				Average	
		point1086	1086	2,455,906.0	728,265.1	2,600.00				Average	
		point1087	1087	2,455,506.0	728,260.2	2,600.00				Average	
		point1776	1776	2,455,056.0	728,254.1	2,600.00				Average	
		point1773	1773	2,455,006.0	728,253.4	2,600.00				Average	
		point1777	1777	2,454,956.0	728,252.7	2,600.00				Average	
		point1774	1774	2,454,906.0	728,252.0	2,600.00					
WB Locust Grove to Merdidan	12.0	point1741	1741	2,460,391.5	728,226.0	2,606.00				Average	
		point1159	1159	2,459,896.5	728,228.1	2,606.00				Average	
		point1160	1160	2,459,496.5	728,229.9	2,605.00				Average	
		point1161	1161	2,459,096.5	728,231.7	2,605.00				Average	
		point1162	1162	2,458,696.8	728,241.5	2,605.00				Average	
		point1163	1163	2,458,296.8	728,249.9	2,604.00				Average	
		point1164	1164	2,457,896.8	728,250.8	2,604.00				Average	
		point1165	1165	2,457,496.8	728,253.2	2,604.00				Average	
		point1166	1166	2,457,096.8	728,254.8	2,602.00				Average	
		point1167	1167	2,456,696.8	728,255.5	2,602.00				Average	
		point1168	1168	2,456,296.8	728,255.7	2,602.00				Average	
		point1169	1169	2,455,896.8	728,253.4	2,600.00				Average	
		point1170	1170	2,455,496.8	728,249.2	2,600.00				Average	
		point1171	1171	2,455,097.0	728,243.0	2,600.00				Average	
		point1765	1765	2,454,963.8	728,240.9	2,600.00					
WB CF 1 at Locust Grove-2	12.0	point1270	1270	2,460,233.5	728,138.7	2,611.00				Average	
		point1271	1271	2,460,083.5	728,136.4	2,611.00				Average	
		point1272	1272	2,459,933.5	728,136.9	2,611.00				Average	
		point1273	1273	2,459,852.2	728,049.8	2,611.00				Average	
		point1274	1274	2,459,851.8	728,009.6	2,611.00					
WB CF 2 at Locust Grove-2	12.0	point1744	1744	2,460,322.5	728,147.4	2,611.00				Average	
		point1263	1263	2,460,251.5	728,129.4	2,611.00				Average	
		point1264	1264	2,460,101.5	728,124.8	2,611.00				Average	
		point1265	1265	2,459,951.5	728,125.3	2,611.00					

EB 3 Locust Grove to Eagle	12.0	point1746	1746	2,459,854.2	728,188.1	2,611.00				Average	
		point926	926	2,460,315.2	728,185.9	2,611.00				Average	
		point927	927	2,460,715.2	728,185.9	2,612.00				Average	
		point928	928	2,461,115.0	728,192.7	2,612.00				Average	
		point929	929	2,461,515.0	728,197.3	2,614.00				Average	
		point930	930	2,461,915.0	728,194.2	2,616.00				Average	
		point931	931	2,462,315.0	728,192.6	2,616.00				Average	
		point932	932	2,462,715.0	728,191.1	2,616.00				Average	
		point933	933	2,463,115.0	728,189.6	2,618.00				Average	
		point934	934	2,463,515.0	728,188.0	2,618.00				Average	
		point935	935	2,463,915.0	728,186.6	2,618.00				Average	
		point936	936	2,464,312.8	728,185.6	2,618.00				Average	
		point937	937	2,465,095.5	728,184.1	2,618.00					
EB 2 Locust Grove to Eagle	12.0	point1747	1747	2,459,854.2	728,176.3	2,611.00				Average	
		point841	841	2,460,313.0	728,174.6	2,611.00				Average	
		point842	842	2,460,713.0	728,174.2	2,612.00				Average	
		point843	843	2,461,112.8	728,180.6	2,612.00				Average	
		point844	844	2,461,512.8	728,183.5	2,614.00				Average	
		point845	845	2,461,912.8	728,182.3	2,616.00				Average	
		point846	846	2,462,312.8	728,180.7	2,616.00				Average	
		point847	847	2,462,712.8	728,179.0	2,616.00				Average	
		point848	848	2,463,112.8	728,177.4	2,618.00				Average	
		point849	849	2,463,512.8	728,175.8	2,618.00				Average	
		point850	850	2,463,912.8	728,174.4	2,618.00				Average	
		point851	851	2,464,312.8	728,173.4	2,618.00				Average	
		point852	852	2,464,712.8	728,172.3	2,618.00				Average	
		point853	853	2,465,095.5	728,170.9	2,618.00					
Main 1-2	12.0	point1748	1748	2,459,854.2	728,163.9	2,611.00				Average	
		point754	754	2,460,312.2	728,161.8	2,611.00				Average	
		point755	755	2,460,712.2	728,163.8	2,612.00				Average	
		point756	756	2,461,112.2	728,168.4	2,612.00				Average	
		point757	757	2,461,512.2	728,172.4	2,614.00				Average	
		point758	758	2,461,912.2	728,170.5	2,618.00				Average	
		point759	759	2,462,312.2	728,168.6	2,618.00				Average	
		point760	760	2,462,712.2	728,166.8	2,618.00				Average	
		point761	761	2,463,112.2	728,165.1	2,618.00				Average	
		point762	762	2,463,512.2	728,163.6	2,618.00				Average	
		point765	765	2,463,912.2	728,162.2	2,618.00				Average	

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		point766	766	2,464,312.2	728,161.1	2,618.00				Average	
		point767	767	2,464,712.2	728,161.6	2,618.00				Average	
		point768	768	2,465,096.5	728,160.1	2,618.00					
Locust Grove to 20_26 Turn Lane-2	12.0	point1312	1312	2,459,326.0	728,267.6	2,611.00				Average	
		point1313	1313	2,459,176.2	728,268.6	2,611.00				Average	
		point1314	1314	2,459,026.2	728,268.7	2,611.00				Average	
		point1315	1315	2,458,887.2	728,267.7	2,611.00					
EB CF 1-2	12.0	point1808	1808	2,459,577.8	728,274.8	2,611.00				Average	
		point1304	1304	2,459,595.8	728,278.4	2,611.00				Average	
		point1305	1305	2,459,745.8	728,278.9	2,611.00				Average	
		point1753	1753	2,459,818.5	728,285.9	2,611.00					
EB 2 Meridian to Locust Grove	12.0	point1759	1759	2,454,713.2	728,185.1	2,595.00				Average	
		point828	828	2,455,113.2	728,190.8	2,598.00				Average	
		point829	829	2,455,513.2	728,196.1	2,600.00				Average	
		point830	830	2,455,913.2	728,201.7	2,602.00				Average	
		point831	831	2,456,313.2	728,203.4	2,602.00				Average	
		point832	832	2,456,713.2	728,203.4	2,602.00				Average	
		point833	833	2,457,113.2	728,201.5	2,605.00				Average	
		point834	834	2,457,513.2	728,199.9	2,605.00				Average	
		point835	835	2,457,913.2	728,198.7	2,606.00				Average	
		point836	836	2,458,313.2	728,196.5	2,606.00				Average	
		point837	837	2,458,713.0	728,187.7	2,608.00				Average	
		point838	838	2,459,113.0	728,180.1	2,608.00				Average	
		point839	839	2,459,513.0	728,178.3	2,609.00				Average	
		point840	840	2,459,913.0	728,176.3	2,610.00					
EB 3 Meridian to Locust Grove	12.0	point741	741	2,455,115.5	728,203.4	2,598.00				Average	
		point742	742	2,455,515.5	728,208.9	2,600.00				Average	
		point743	743	2,455,915.5	728,213.3	2,602.00				Average	
		point744	744	2,456,315.5	728,217.1	2,602.00				Average	
		point745	745	2,456,715.5	728,216.2	2,602.00				Average	
		point746	746	2,457,115.5	728,213.9	2,605.00				Average	
		point747	747	2,457,515.5	728,212.4	2,605.00				Average	
		point748	748	2,457,915.5	728,210.6	2,606.00				Average	
		point749	749	2,458,315.5	728,208.7	2,606.00				Average	
		point750	750	2,458,715.2	728,200.4	2,606.00				Average	
		point751	751	2,459,115.2	728,192.0	2,608.00				Average	
		point752	752	2,459,515.2	728,189.8	2,609.00				Average	
		point753	753	2,459,915.2	728,188.1	2,610.00					

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WB Locust Grove to Merdidan-2	12.0	point1772	1772	2,454,922.0	728,240.2	2,593.00				Average	
		point1771	1771	2,454,880.5	728,239.6	2,593.00				Average	
		point1769	1769	2,454,797.0	728,238.2	2,593.00				Average	
		point1172	1172	2,454,697.0	728,236.7	2,593.00				Average	
		point1173	1173	2,454,297.0	728,233.8	2,592.00				Average	
		point1174	1174	2,453,897.2	728,244.8	2,590.00				Average	
		point1175	1175	2,453,497.8	728,267.1	2,589.00				Average	
		point1176	1176	2,453,098.2	728,284.5	2,588.00				Average	
		point1177	1177	2,452,698.2	728,288.1	2,588.00				Average	
		point1178	1178	2,452,298.2	728,290.3	2,587.00				Average	
		point1179	1179	2,451,898.2	728,293.1	2,586.00				Average	
		point1180	1180	2,451,498.2	728,296.6	2,584.00				Average	
		point1181	1181	2,451,098.2	728,299.9	2,581.00				Average	
		point1182	1182	2,450,698.2	728,303.0	2,581.00				Average	
		point1183	1183	2,450,298.2	728,301.9	2,581.00				Average	
		point1184	1184	2,449,898.5	728,289.4	2,581.00				Average	
		point1185	1185	2,449,498.5	728,287.5	2,581.00				Average	
		point1186	1186	2,449,098.5	728,291.1	2,581.00					
WB2 Meridian to Linder	12.0	point1775	1775	2,454,806.0	728,250.6	2,593.00				Average	
		point1089	1089	2,454,706.0	728,249.2	2,593.00				Average	
		point1090	1090	2,454,306.0	728,246.2	2,592.00				Average	
		point1091	1091	2,453,906.2	728,255.6	2,590.00				Average	
		point1092	1092	2,453,507.0	728,279.9	2,589.00				Average	
		point1093	1093	2,453,107.2	728,294.6	2,588.00				Average	
		point1094	1094	2,452,707.5	728,298.6	2,588.00				Average	
		point1095	1095	2,452,307.5	728,302.1	2,587.00				Average	
		point1096	1096	2,451,907.5	728,305.6	2,586.00				Average	
		point1097	1097	2,451,507.5	728,308.5	2,584.00				Average	
		point1098	1098	2,451,107.5	728,311.5	2,581.00				Average	
		point1099	1099	2,450,707.5	728,313.8	2,581.00				Average	
		point1100	1100	2,450,307.5	728,314.4	2,581.00				Average	
		point1101	1101	2,449,907.8	728,301.5	2,581.00				Average	
		point1102	1102	2,449,507.8	728,299.3	2,581.00				Average	
		point1103	1103	2,449,107.8	728,303.4	2,581.00				Average	
		point1819	1819	2,448,907.8	728,307.0	2,581.00					
WB Meridian to Linder	12.0	point1781	1781	2,454,801.0	728,263.5	2,595.00				Average	
		point964	964	2,454,701.0	728,262.4	2,593.00				Average	
		point965	965	2,454,301.0	728,258.6	2,592.00				Average	

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		point966	966	2,453,901.2	728,269.7	2,590.00				Average	
		point967	967	2,453,502.0	728,291.4	2,589.00				Average	
		point968	968	2,453,102.2	728,306.8	2,588.00				Average	
		point969	969	2,452,702.2	728,311.6	2,588.00				Average	
		point970	970	2,452,302.2	728,314.7	2,587.00				Average	
		point971	971	2,451,902.2	728,317.3	2,586.00				Average	
		point972	972	2,451,502.2	728,320.2	2,584.00				Average	
		point973	973	2,451,102.2	728,323.5	2,581.00				Average	
		point974	974	2,450,702.2	728,326.9	2,581.00				Average	
		point975	975	2,450,302.2	728,326.3	2,581.00				Average	
		point976	976	2,449,902.5	728,312.7	2,581.00				Average	
		point977	977	2,449,502.5	728,312.0	2,581.00				Average	
		point978	978	2,449,102.5	728,315.8	2,581.00				Average	
		point1821	1821	2,448,902.5	728,319.6	2,581.00				Average	
		point979	979	2,448,702.8	728,323.4	2,581.00					
EB CF 2-2	12.0	point1813	1813	2,454,436.8	728,264.3	2,600.00				Average	
		point1414	1414	2,454,469.5	728,281.3	2,600.00				Average	
		point1415	1415	2,454,619.2	728,286.5	2,600.00				Average	
		point1416	1416	2,454,769.0	728,288.8	2,600.00				Average	
		point1844	1844	2,454,781.2	728,311.4	2,600.00				Average	
		point1845	1845	2,454,793.5	728,333.9	2,600.00					
EB 1 Linder to Meridian	12.0	point1816	1816	2,448,914.0	728,229.9	2,584.00				Average	
		point726	726	2,449,114.0	728,228.0	2,586.00				Average	
		point727	727	2,449,513.8	728,223.7	2,587.00				Average	
		point728	728	2,449,913.8	728,222.3	2,587.00				Average	
		point729	729	2,450,313.8	728,228.0	2,588.00				Average	
		point730	730	2,450,713.8	728,227.0	2,589.00				Average	
		point731	731	2,451,113.8	728,224.3	2,589.00				Average	
		point732	732	2,451,513.8	728,220.7	2,589.00				Average	
		point733	733	2,451,913.8	728,217.3	2,588.00				Average	
		point734	734	2,452,313.8	728,214.2	2,588.00				Average	
		point735	735	2,452,713.8	728,211.5	2,589.00				Average	
		point736	736	2,453,113.8	728,208.6	2,590.00				Average	
		point737	737	2,453,513.5	728,199.5	2,593.00				Average	
		point738	738	2,453,913.0	728,178.8	2,593.00				Average	
		point739	739	2,454,312.8	728,170.1	2,593.00				Average	
		point740	740	2,454,712.8	728,173.3	2,593.00				Average	
		point1760	1760	2,454,846.0	728,175.2	2,600.00					

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EB Meridian to Linder	12.0	point1817	1817	2,448,714.2	728,244.0	2,584.00				Average	
		point813	813	2,449,114.2	728,239.4	2,586.00				Average	
		point814	814	2,449,514.2	728,234.6	2,587.00				Average	
		point815	815	2,449,914.2	728,233.8	2,587.00				Average	
		point816	816	2,450,314.2	728,237.6	2,588.00				Average	
		point817	817	2,450,714.2	728,238.6	2,589.00				Average	
		point818	818	2,451,114.2	728,235.8	2,589.00				Average	
		point819	819	2,451,514.2	728,232.6	2,588.00				Average	
		point820	820	2,451,914.2	728,229.4	2,588.00				Average	
		point821	821	2,452,314.2	728,226.1	2,589.00				Average	
		point822	822	2,452,714.0	728,223.0	2,590.00				Average	
		point823	823	2,453,114.0	728,219.9	2,593.00				Average	
		point824	824	2,453,514.0	728,211.5	2,593.00				Average	
		point825	825	2,453,913.5	728,190.8	2,593.00				Average	
		point826	826	2,454,313.2	728,182.5	2,593.00				Average	
		point827	827	2,454,710.2	728,185.1	2,593.00					
EB 3 Linder to Meridian	12.0	point1823	1823	2,449,916.5	728,246.1	2,584.00				Average	
		point1824	1824	2,450,316.5	728,252.0	2,586.00				Average	
		point1825	1825	2,450,716.5	728,250.8	2,587.00				Average	
		point1826	1826	2,451,116.5	728,247.2	2,587.00				Average	
		point1827	1827	2,451,516.5	728,243.5	2,588.00				Average	
		point1828	1828	2,451,916.5	728,241.3	2,589.00				Average	
		point1829	1829	2,452,316.5	728,239.2	2,589.00				Average	
		point1830	1830	2,452,716.5	728,235.3	2,589.00				Average	
		point1831	1831	2,453,116.5	728,231.1	2,588.00				Average	
		point1832	1832	2,453,516.2	728,223.7	2,588.00				Average	
		point1833	1833	2,453,915.8	728,202.8	2,589.00				Average	
		point1834	1834	2,454,315.5	728,193.6	2,590.00				Average	
		point1835	1835	2,454,715.5	728,197.1	2,593.00					
WB CF 4-2	12.0	point1862	1862	2,455,194.5	728,177.4	2,600.00				Average	
		point1863	1863	2,455,186.2	728,173.6	2,600.00				Average	
		point1838	1838	2,455,178.0	728,169.7	2,600.00				Average	
		point1376	1376	2,455,144.8	728,154.2	2,600.00				Average	
		point1377	1377	2,454,994.8	728,145.6	2,600.00				Average	
		point1378	1378	2,454,889.0	728,141.8	2,600.00					
WB CF 3-2	12.0	point1864	1864	2,455,217.2	728,174.8	2,600.00				Average	
		point1865	1865	2,455,171.8	728,158.1	2,600.00				Average	
		point1367	1367	2,455,126.0	728,141.5	2,600.00				Average	

INPUT: ROADWAYS

20_26 Corridor Study

		point1368	1368	2,454,976.0	728,139.3	2,600.00				Average	
		point1369	1369	2,454,892.0	728,121.1	2,600.00					
EB 3 Meridian to Locust Grove	12.0	point1847	1847	2,454,700.8	728,173.3	2,600.00				Average	
		point1848	1848	2,455,112.8	728,178.9	2,600.00				Average	
		point1849	1849	2,455,512.8	728,184.0	2,600.00				Average	
		point1850	1850	2,455,912.8	728,189.6	2,602.00				Average	
		point1851	1851	2,456,312.8	728,194.3	2,602.00				Average	
		point1852	1852	2,456,712.8	728,191.5	2,602.00				Average	
		point1853	1853	2,457,112.8	728,190.2	2,605.00				Average	
		point1854	1854	2,457,512.5	728,189.4	2,605.00				Average	
		point1855	1855	2,457,912.5	728,187.0	2,606.00				Average	
		point1856	1856	2,458,312.5	728,184.1	2,606.00				Average	
		point1857	1857	2,458,712.5	728,176.9	2,608.00				Average	
		point1858	1858	2,459,112.5	728,166.8	2,608.00				Average	
		point1859	1859	2,459,512.5	728,166.3	2,609.00				Average	
		point1860	1860	2,459,912.2	728,163.9	2,610.00					
Fox Run SB N	12.0	point1866	1866	2,452,517.0	728,452.9	2,587.00				Average	
		point1867	1867	2,452,517.0	728,340.5	2,587.00					
Fox Run NB N	12.0	point1868	1868	2,452,523.2	728,342.9	2,587.00				Average	
		point1869	1869	2,452,521.0	728,452.9	2,587.00					
Fox Run SB S	12.0	point1870	1870	2,452,526.5	728,181.2	2,587.00				Average	
		point1871	1871	2,452,526.5	728,070.4	2,587.00					
Fox Run NB S	12.0	point1872	1872	2,452,532.8	728,072.8	2,587.00				Average	
		point1873	1873	2,452,532.0	728,180.5	2,587.00					
Castlebury SB	12.0	point1874	1874	2,457,836.8	728,511.6	2,604.00				Average	
		point1875	1875	2,457,835.0	728,340.6	2,604.00					
Castlebury NB N	12.0	point1876	1876	2,457,863.5	728,345.9	2,604.00				Average	
		point1877	1877	2,457,858.2	728,518.8	2,604.00					
Castlebury S	12.0	point1878	1878	2,457,844.0	728,167.9	2,604.00				Average	
		point1879	1879	2,457,845.8	728,018.2	2,604.00					
Roadway186	12.0	point1880	1880	2,457,861.8	728,018.2	2,604.00				Average	
		point1881	1881	2,457,856.5	728,167.9	2,604.00					

C66

AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Build 1with Berms

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Incre-ment	Perturbs #Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Banbury Middle	W	0.00	99.99	0.00				0.00	point22	22	2,462,548.5	728,285.1	2,618.00	6.00	0.00	0	0		
									point23	23	2,462,748.5	728,285.8	2,618.00	6.00	0.00	0	0		
									point24	24	2,462,948.5	728,286.6	2,618.00	6.00	0.00	0	0		
									point25	25	2,463,148.2	728,287.3	2,616.00	6.00	0.00	0	0		
									point26	26	2,463,348.2	728,288.1	2,616.00	6.00	0.00	0	0		
									point27	27	2,463,548.2	728,288.8	2,617.00	6.00	0.00	0	0		
									point28	28	2,463,948.2	728,290.3	2,617.00	6.00	0.00	0	0		
									point29	29	2,464,148.2	728,291.0	2,614.00	6.00	0.00	0	0		
									point30	30	2,464,348.2	728,291.8	2,615.00	6.00	0.00	0	0		
									point31	31	2,464,548.2	728,292.5	2,617.00	6.00					
Banbury West	W	0.00	99.99	0.00				0.00	point32	32	2,462,315.8	728,288.5	2,618.00	6.00	0.00	0	0		
									point33	33	2,461,995.8	728,289.0	2,618.00	6.00	0.00	0	0		
									point34	34	2,461,795.8	728,289.4	2,618.00	6.00	0.00	0	0		
									point35	35	2,461,595.8	728,289.8	2,618.00	6.00	0.00	0	0		
									point36	36	2,461,395.8	728,289.8	2,618.00	6.00	0.00	0	0		
									point37	37	2,461,195.8	728,290.4	2,618.00	6.00	0.00	0	0		
									point38	38	2,460,995.8	728,292.4	2,618.00	6.00	0.00	0	0		
									point39	39	2,460,796.0	728,296.3	2,618.00	6.00	0.00	0	0		
									point40	40	2,460,596.0	728,300.8	2,618.00	6.00	0.00	0	0		
									point134	134	2,460,396.0	728,302.1	2,618.00	6.00	0.00	0	0		
									point133	133	2,460,196.0	728,315.5	2,618.00	6.00	0.00	0	0		
									point41	41	2,459,926.5	728,330.7	2,618.00	6.00	0.00	0	0		
									point42	42	2,459,933.0	728,508.7	2,618.00	6.00					
Paramount	W	0.00	99.99	0.00				0.00	point76	76	2,454,681.0	727,483.5	2,598.00	6.00	0.00	0	0		
									point77	77	2,454,680.5	727,683.5	2,598.00	6.00	0.00	0	0		
									point78	78	2,454,679.8	727,883.5	2,598.00	6.00	0.00	0	0		
									point79	79	2,454,679.2	728,083.5	2,598.00	6.00	0.00	0	0		
									point80	80	2,454,572.8	728,107.7	2,598.00	6.00	0.00	0	0		
									point81	81	2,454,372.8	728,102.2	2,598.00	6.00	0.00	0	0		
									point82	82	2,454,172.8	728,105.7	2,598.00	6.00	0.00	0	0		
									point83	83	2,453,973.0	728,108.3	2,598.00	6.00	0.00	0	0		
									point84	84	2,453,773.0	728,109.4	2,598.00	6.00					
Fox Run E	W	0.00	99.99	0.00				0.00	point92	92	2,452,542.2	728,347.8	2,592.00	10.00	0.00	0	0		
									point292	292	2,452,642.2	728,349.6	2,592.00	10.00	0.00	0	0		
									point291	291	2,452,742.2	728,351.4	2,592.00	10.00	0.00	0	0		

INPUT: BARRIERS

20_26 Corridor Study

									point93	93	2,452,842.2	728,353.2	2,592.00	10.00	0.00	0	0
									point94	94	2,452,942.2	728,355.0	2,592.00	10.00	0.00	0	0
									point95	95	2,453,028.5	728,356.6	2,592.00	10.00			
Bristol Heights 2	W	0.00	99.99	0.00				0.00	point137	137	2,463,266.5	727,942.0	2,618.00	4.00	0.00	0	0
									point138	138	2,463,266.5	728,130.0	2,618.00	6.00	0.00	0	0
									point139	139	2,463,216.5	728,129.6	2,618.00	6.00	0.00	0	0
									point140	140	2,463,016.5	728,128.0	2,618.00	6.00	0.00	0	0
									point141	141	2,462,816.5	728,126.5	2,618.00	6.00	0.00	0	0
									point144	144	2,462,636.5	728,122.9	2,618.00	6.00	0.00	0	0
									point157	157	2,462,573.8	728,122.0	2,618.00	6.00	0.00	0	0
									point158	158	2,462,511.0	728,121.1	2,618.00	6.00			
Shandee	W	0.00	99.99	0.00				0.00	point147	147	2,461,798.2	728,121.9	2,618.00	4.00	0.00	0	0
									point263	263	2,461,848.0	728,120.4	2,618.00	4.00	0.00	0	0
									point262	262	2,461,897.8	728,120.4	2,618.00	4.00	0.00	0	0
									point261	261	2,461,947.5	728,120.4	2,618.00	4.00	0.00	0	0
									point148	148	2,461,953.0	728,123.5	2,618.00	4.00			
Bristol Heights-2	W	0.00	99.99	0.00				0.00	point155	155	2,463,766.5	727,646.0	2,618.00	6.00	0.00	0	0
									point154	154	2,463,766.5	728,133.9	2,618.00	6.00	0.00	0	0
									point152	152	2,463,716.5	728,133.6	2,618.00	6.00	0.00	0	0
									point71	71	2,463,616.5	728,132.8	2,618.00	6.00	0.00	0	0
									point72	72	2,463,416.5	728,131.2	2,618.00	6.00	0.00	0	0
									point73	73	2,463,366.5	728,130.8	2,618.00	6.00	0.00	0	0
									point74	74	2,463,316.5	728,130.4	2,618.00	6.00	0.00	0	0
									point75	75	2,463,316.5	728,030.0	2,618.00	4.00			
Bristol Heights R14	W	0.00	99.99	0.00				0.00	point160	160	2,462,148.2	728,121.9	2,618.00	6.00	0.00	0	0
									point161	161	2,462,314.8	728,120.4	2,618.00	6.00	0.00	0	0
									point162	162	2,462,336.5	728,120.4	2,618.00	6.00	0.00	0	0
									point163	163	2,462,451.5	728,120.4	2,618.00	6.00	0.00	0	0
									point164	164	2,462,451.5	728,123.5	2,618.00	6.00			
Castleberry Ave E	W	0.00	99.99	0.00				0.00	point175	175	2,457,901.8	728,469.7	2,604.00	8.00	0.00	0	0
									point176	176	2,457,921.5	728,371.7	2,604.00	8.00	0.00	0	0
									point177	177	2,457,988.5	728,330.4	2,604.00	8.00	0.00	0	0
									point178	178	2,458,088.5	728,329.1	2,604.00	8.00	0.00	0	0
									point179	179	2,458,188.5	728,327.9	2,604.00	8.00	0.00	0	0
									point180	180	2,458,288.5	728,326.6	2,604.00	8.00	0.00	0	0
									point181	181	2,458,388.5	728,325.4	2,604.00	8.00	0.00	0	0
									point182	182	2,458,488.5	728,324.1	2,604.00	8.00	0.00	0	0
									point183	183	2,458,588.5	728,322.8	2,604.00	8.00	0.00	0	0
									point184	184	2,458,688.5	728,321.6	2,604.00	8.00	0.00	0	0
									point185	185	2,458,788.5	728,320.3	2,604.00	8.00	0.00	0	0
									point186	186	2,458,888.5	728,319.1	2,604.00	8.00	0.00	0	0
									point187	187	2,458,988.2	728,317.8	2,604.00	8.00	0.00	0	0
									point188	188	2,459,088.2	728,316.5	2,604.00	8.00	0.00	0	0
									point189	189	2,459,188.2	728,315.3	2,604.00	8.00	0.00	0	0
									point190	190	2,459,288.2	728,314.0	2,604.00	8.00	0.00	0	0
									point191	191	2,459,388.2	728,312.7	2,604.00	8.00	0.00	0	0
									point192	192	2,459,488.2	728,311.5	2,604.00	8.00	0.00	0	0
									point193	193	2,459,588.2	728,310.2	2,604.00	8.00	0.00	0	0

								point194	194	2,459,688.2	728,309.0	2,604.00	8.00	0.00	0	0
								point195	195	2,459,788.2	728,307.7	2,604.00	8.00	0.00	0	0
								point196	196	2,459,816.0	728,382.2	2,604.00	8.00	0.00	0	0
								point197	197	2,459,819.5	728,482.2	2,604.00	8.00	0.00	0	0
								point198	198	2,459,823.0	728,582.1	2,604.00	8.00			
Castlebury W	W	0.00	99.99	0.00			0.00	point199	199	2,457,413.0	728,357.1	2,604.00	8.00	0.00	0	0
								point200	200	2,457,409.8	728,312.4	2,604.00	8.00	0.00	0	0
								point201	201	2,457,509.5	728,317.7	2,604.00	8.00	0.00	0	0
								point202	202	2,457,609.5	728,323.0	2,604.00	8.00	0.00	0	0
								point203	203	2,457,709.2	728,328.2	2,604.00	8.00	0.00	0	0
								point204	204	2,457,792.2	728,353.2	2,604.00	8.00	0.00	0	0
								point205	205	2,457,811.5	728,451.3	2,604.00	8.00			
Castle berry West	W	0.00	99.99	0.00			0.00	point206	206	2,454,880.5	728,715.7	2,606.00	6.00	0.00	0	0
								point207	207	2,454,880.0	728,615.7	2,606.00	6.00	0.00	0	0
								point208	208	2,454,879.2	728,515.7	2,606.00	6.00	0.00	0	0
								point209	209	2,454,878.8	728,415.7	2,606.00	6.00	0.00	0	0
								point210	210	2,454,930.8	728,367.3	2,606.00	6.00	0.00	0	0
								point211	211	2,455,030.8	728,365.7	2,606.00	6.00	0.00	0	0
								point212	212	2,455,130.8	728,364.1	2,606.00	6.00	0.00	0	0
								point213	213	2,455,230.8	728,362.4	2,604.00	6.00	0.00	0	0
								point214	214	2,455,330.8	728,360.8	2,604.00	6.00	0.00	0	0
								point215	215	2,455,430.8	728,359.2	2,604.00	6.00	0.00	0	0
								point216	216	2,455,530.8	728,357.6	2,604.00	6.00	0.00	0	0
								point217	217	2,455,630.8	728,356.0	2,604.00	6.00	0.00	0	0
								point218	218	2,455,730.8	728,354.4	2,604.00	6.00	0.00	0	0
								point219	219	2,455,830.8	728,352.8	2,604.00	6.00	0.00	0	0
								point220	220	2,455,930.8	728,351.2	2,604.00	6.00	0.00	0	0
								point221	221	2,456,030.8	728,349.6	2,604.00	6.00	0.00	0	0
								point222	222	2,456,130.5	728,348.0	2,604.00	8.00	0.00	0	0
								point223	223	2,456,230.5	728,346.3	2,604.00	8.00	0.00	0	0
								point224	224	2,456,330.5	728,344.7	2,604.00	8.00	0.00	0	0
								point225	225	2,456,430.5	728,343.1	2,604.00	8.00	0.00	0	0
								point226	226	2,456,530.5	728,341.5	2,604.00	8.00	0.00	0	0
								point227	227	2,456,630.5	728,339.9	2,604.00	8.00	0.00	0	0
								point228	228	2,456,730.5	728,338.3	2,604.00	10.00	0.00	0	0
								point229	229	2,456,830.5	728,336.7	2,604.00	10.00	0.00	0	0
								point230	230	2,456,930.5	728,335.1	2,604.00	10.00	0.00	0	0
								point231	231	2,457,030.5	728,333.5	2,604.00	10.00	0.00	0	0
								point232	232	2,457,130.5	728,331.9	2,604.00	10.00	0.00	0	0
								point233	233	2,457,215.0	728,347.9	2,604.00	10.00	0.00	0	0
								point234	234	2,457,226.5	728,447.3	2,604.00	10.00			
Banbury East	W	0.00	99.99	0.00			0.00	point253	253	2,464,678.2	728,312.2	2,618.00	5.00	0.00	0	0
								point254	254	2,464,778.0	728,314.8	2,618.00	5.00	0.00	0	0
								point255	255	2,464,878.0	728,317.4	2,618.00	5.00	0.00	0	0
								point256	256	2,464,978.0	728,320.1	2,618.00	5.00	0.00	0	0
								point257	257	2,465,078.0	728,322.7	2,618.00	5.00	0.00	0	0
								point258	258	2,465,101.0	728,403.4	2,618.00	5.00	0.00	0	0
								point259	259	2,465,105.0	728,503.3	2,618.00	5.00	0.00	0	0

								point260	260	2,465,106.0	728,527.3	2,618.00	5.00			
Three Corners	W	0.00	99.99	0.00			0.00	point264	264	2,461,175.5	728,121.9	2,611.00	10.00	0.00	0	0
								point265	265	2,461,075.5	728,120.4	2,611.00	10.00	0.00	0	0
								point266	266	2,460,975.5	728,120.4	2,611.00	10.00	0.00	0	0
								point267	267	2,460,875.5	728,120.4	2,611.00	10.00	0.00	0	0
								point268	268	2,460,775.8	728,123.5	2,611.00	10.00	0.00	0	0
								point269	269	2,460,675.8	728,121.9	2,611.00	10.00	0.00	0	0
								point270	270	2,460,575.8	728,120.4	2,611.00	10.00	0.00	0	0
								point271	271	2,460,475.8	728,120.4	2,611.00	10.00	0.00	0	0
								point272	272	2,460,375.8	728,120.4	2,611.00	10.00	0.00	0	0
								point273	273	2,460,275.8	728,064.5	2,611.00	10.00	0.00	0	0
								point274	274	2,460,175.8	728,064.0	2,611.00	10.00	0.00	0	0
								point275	275	2,460,076.0	728,064.2	2,611.00	10.00	0.00	0	0
								point276	276	2,459,976.0	728,064.6	2,611.00	10.00			
Yoga Wall	W	0.00	99.99	0.00			0.00	point278	278	2,457,892.0	728,138.9	2,598.00	10.00	0.00	0	0
								point279	279	2,457,992.0	728,138.9	2,598.00	10.00	0.00	0	0
								point280	280	2,458,092.0	728,138.9	2,598.00	10.00	0.00	0	0
								point281	281	2,458,192.0	728,138.9	2,598.00	10.00	0.00	0	0
								point282	282	2,458,292.0	728,138.9	2,598.00	10.00	0.00	0	0
								point283	283	2,458,392.0	728,138.9	2,598.00	10.00	0.00	0	0
								point284	284	2,458,492.0	728,138.9	2,598.00	10.00	0.00	0	0
								point285	285	2,458,592.0	728,138.9	2,598.00	10.00	0.00	0	0
								point286	286	2,458,692.0	728,138.9	2,598.00	10.00	0.00	0	0
								point287	287	2,458,792.0	728,138.9	2,598.00	10.00	0.00	0	0
								point288	288	2,458,892.0	728,138.9	2,598.00	10.00	0.00	0	0
								point289	289	2,458,991.8	728,138.9	2,598.00	10.00	0.00	0	0
								point290	290	2,459,091.8	728,138.9	2,598.00	10.00			
Fox Run Way E	W	0.00	99.99	0.00			0.00	point293	293	2,452,561.2	728,184.1	2,583.00	10.00	0.00	0	0
								point294	294	2,452,581.5	728,184.1	2,583.00	10.00	0.00	0	0
								point295	295	2,452,674.8	728,181.4	2,583.00	10.00	0.00	0	0
								point296	296	2,452,774.8	728,178.8	2,583.00	10.00	0.00	0	0
								point297	297	2,452,874.8	728,170.8	2,583.00	10.00	0.00	0	0
								point298	298	2,452,974.8	728,168.1	2,583.00	10.00			
Fox Run W North	W	0.00	99.99	0.00			0.00	point300	300	2,452,285.0	728,344.0	2,583.00	6.00	0.00	0	0
								point301	301	2,452,385.0	728,347.8	2,583.00	6.00	0.00	0	0
								point302	302	2,452,467.0	728,372.6	2,583.00	6.00	0.00	0	0
								point305	305	2,452,488.2	728,479.8	2,583.00	6.00			
Reynard E	W	0.00	99.99	0.00			0.00	point306	306	2,451,366.5	728,414.4	2,583.00	12.00	0.00	0	0
								point307	307	2,451,466.5	728,415.0	2,583.00	12.00	0.00	0	0
								point308	308	2,451,566.5	728,415.6	2,583.00	12.00	0.00	0	0
								point309	309	2,451,666.5	728,416.2	2,583.00	12.00	0.00	0	0
								point310	310	2,451,766.5	728,416.8	2,583.00	12.00	0.00	0	0
								point311	311	2,451,866.5	728,417.4	2,583.00	12.00	0.00	0	0
								point312	312	2,451,966.5	728,418.0	2,583.00	12.00	0.00	0	0
								point313	313	2,452,066.5	728,418.6	2,583.00	12.00	0.00	0	0
								point314	314	2,452,131.5	728,419.0	2,583.00	12.00			
Reynard	W	0.00	99.99	0.00			0.00	point315	315	2,450,820.0	728,643.5	2,583.00	6.00	0.00	0	0
								point316	316	2,450,920.0	728,640.8	2,583.00	6.00	0.00	0	0

INPUT: BARRIERS **20_26 Corridor Study**

									point317	317	2,451,020.0	728,638.0	2,583.00	6.00	0.00	0	0	
									point318	318	2,451,120.0	728,635.2	2,583.00	6.00	0.00	0	0	
									point319	319	2,451,166.5	728,694.2	2,583.00	6.00	0.00	0	0	
									point320	320	2,451,170.8	728,729.9	2,583.00	6.00				
Bristol Heights Wall	W	0.00	99.99	0.00				0.00	point321	321	2,463,898.5	727,839.2	2,618.00	6.00	0.00	0	0	
									point322	322	2,463,900.5	727,939.2	2,618.00	6.00	0.00	0	0	
									point323	323	2,463,902.5	728,039.1	2,618.00	6.00	0.00	0	0	
									point324	324	2,463,904.5	728,120.1	2,618.00	6.00	0.00	0	0	
									point325	325	2,463,999.5	728,120.3	2,618.00	6.00	0.00	0	0	
									point326	326	2,464,299.0	728,120.7	2,618.00	6.00	0.00	0	0	
									point327	327	2,464,480.8	728,120.0	2,618.00	6.00				

AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Build 1with Berms

Roadway Name	Points Name	No.	Segment Autos V veh/hr	Autos S mph	MTrucks V veh/hr	MTrucks S mph	HTrucks V veh/hr	HTrucks S mph	Buses V veh/hr	Buses S mph	Motorcycles V veh/hr	Motorcycles S mph
Eagle Rd SB 1	point56	13	1017	45	51	45	2	45	0	0	0	0
	point57	14	1017	45	51	45	2	45	0	0	0	0
	point58	15										
Eagle Rd SB 2	point59	16	1017	45	51	45	2	45	0	0	0	0
	point60	17	1017	45	51	45	2	45	0	0	0	0
	point61	18										
Eagle RD NB 1	point62	19	1273	45	59	45	2	45	0	0	0	0
	point63	20	1273	45	59	45	2	45	0	0	0	0
	point64	21										
Eagle Rd NB 2	point65	22	1273	45	59	45	2	45	0	0	0	0
	point66	23	1273	45	59	45	2	45	0	0	0	0
	point67	24										
Locust Grove NB_north of 20_26	point69	25	392	30	21	30	13	30	0	0	0	0
	point68	26										
Locust Grove NB-south of 20_26	point72	29	1020	35	938	35	51	35	0	0	0	0
	point71	28	368	35	28	35	20	35	0	0	0	0
	point70	27										
Meridian SB north of 20_26	point73	30	323	35	25	35	18	35	0	0	0	0
	point74	31										
Meridian NB-south of 20_26	point75	32	323	35	25	35	18	35	0	0	0	0
	point76	33										
Meridian NB- north of 20_26	point118	59	323	35	25	35	18	35	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point117	60											
Meridian SB- south of 20_26	point120	62	323	35	25	35	18	35	0	0	0	0
	point119	63											
Locust Grove SB-north of 20_26	point122	64	670	30	36	30	22	30	0	0	0	0
	point123	65											
Locust Grove SB-south of 20_26	point124	66	1163	40	63	40	38	40	0	0	0	0
	point125	67											
WB 1 Main Eagle Road to Locust Grove	point938	938	971	50	78	50	45	50	11	50	11	50
	point939	939	971	50	78	50	45	50	11	50	11	50
	point940	940	971	50	78	50	45	50	11	50	11	50
	point941	941	971	50	78	50	45	50	11	50	11	50
	point942	942	971	50	78	50	45	50	11	50	11	50
	point943	943	971	50	78	50	45	50	11	50	11	50
	point944	944	971	50	78	50	45	50	11	50	11	50
	point945	945	971	50	78	50	45	50	11	50	11	50
	point946	946	971	50	78	50	45	50	11	50	11	50
	point947	947	971	50	78	50	45	50	11	50	11	50
	point948	948	971	50	78	50	45	50	11	50	11	50
	point949	949	971	50	78	50	45	50	11	50	11	50
	point950	950										
WB Eagle to Locust Grove 2	point1062	1062	971	50	78	50	45	50	11	50	11	50
	point1063	1063	971	50	78	50	45	50	11	50	11	50
	point1064	1064	971	50	78	50	45	50	11	50	11	50
	point1065	1065	971	50	78	50	45	50	11	50	11	50
	point1066	1066	971	50	78	50	45	50	11	50	11	50
	point1067	1067	971	50	78	50	45	50	11	50	11	50
	point1069	1069	971	50	78	50	45	50	11	50	11	50
	point1070	1070	971	50	78	50	45	50	11	50	11	50
	point1071	1071	971	50	78	50	45	50	11	50	11	50
	point1072	1072	971	50	78	50	45	50	11	50	11	50
	point1073	1073	971	50	78	50	45	50	11	50	11	50
	point1074	1074	971	50	78	50	45	50	11	50	11	50
	point1075	1075										
WB Eagle to Locust Grove 3	point1145	1145	971	50	78	50	45	50	11	50	11	50
	point1146	1146	971	50	78	50	45	50	11	50	11	50

	point1147	1147	971	50	78	50	45	50	11	50	11	50
	point1148	1148	971	50	78	50	45	50	11	50	11	50
	point1149	1149	971	50	78	50	45	50	11	50	11	50
	point1150	1150	971	50	78	50	45	50	11	50	11	50
	point1152	1152	971	50	78	50	45	50	11	50	11	50
	point1153	1153	971	50	78	50	45	50	11	50	11	50
	point1154	1154	971	50	78	50	45	50	11	50	11	50
	point1155	1155	971	50	78	50	45	50	11	50	11	50
	point1156	1156	971	50	78	50	45	50	11	50	11	50
	point1157	1157	971	50	78	50	45	50	11	50	11	50
	point1158	1158										
EB Turn to Eagle NB	point1228	1228	272	25	0	0	0	0	0	0	0	0
	point1229	1229	272	25	0	0	0	0	0	0	0	0
	point1230	1230	272	25	0	0	0	0	0	0	0	0
	point1231	1231	272	25	0	0	0	0	0	0	0	0
	point1232	1232										
EB Turn to Eagle Road	point1233	1233	250	25	0	0	0	0	0	0	0	0
	point1234	1234	250	25	0	0	0	0	0	0	0	0
	point1235	1235	250	25	0	0	0	0	0	0	0	0
	point1236	1236	250	25	0	0	0	0	0	0	0	0
	point1237	1237	250	25	0	0	0	0	0	0	0	0
	point1238	1238										
WB Turn 2	point1245	1245	118	25	0	0	0	0	0	0	0	0
	point1246	1246	118	25	0	0	0	0	0	0	0	0
	point1247	1247										
EB Turn 3	point1257	1257	97	25	0	0	0	0	0	0	0	0
	point1253	1253	97	25	0	0	0	0	0	0	0	0
	point1254	1254	97	25	0	0	0	0	0	0	0	0
	point1256	1256										
WB CF 2 at Locust Grove	point1258	1258	253	25	0	0	0	0	0	0	0	0
	point1259	1259	253	25	0	0	0	0	0	0	0	0
	point1260	1260	253	25	0	0	0	0	0	0	0	0
	point1261	1261										
WB CF 1 at Locust Grove	point1266	1266	254	25	0	0	0	0	0	0	0	0
	point1267	1267	254	25	0	0	0	0	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point1268	1268	254	25	0	0	0	0	0	0	0	0
	point1269	1269										
EB Merge 1	point1275	1275	541	25	0	0	0	0	0	0	0	0
	point1276	1276	541	25	0	0	0	0	0	0	0	0
	point1277	1277	541	25	0	0	0	0	0	0	0	0
	point1282	1282	541	25	0	0	0	0	0	0	0	0
	point1278	1278	541	25	0	0	0	0	0	0	0	0
	point1279	1279	541	25	0	0	0	0	0	0	0	0
	point1280	1280	541	25	0	0	0	0	0	0	0	0
	point1281	1281										
EB Turn Locust Grove	point1295	1295	300	25	0	0	0	0	0	0	0	0
	point1296	1296	300	25	0	0	0	0	0	0	0	0
	point1297	1297	300	25	0	0	0	0	0	0	0	0
	point1298	1298	300	25	0	0	0	0	0	0	0	0
	point1299	1299										
EB CF 1	point1300	1300	73	25	0	0	0	0	0	0	0	0
	point1301	1301	73	25	0	0	0	0	0	0	0	0
	point1302	1302	73	25	0	0	0	0	0	0	0	0
	point1798	1798	73	25	0	0	0	0	0	0	0	0
	point1799	1799	73	25	0	0	0	0	0	0	0	0
	point1800	1800	73	25	0	0	0	0	0	0	0	0
	point1805	1805										
Locust Grove to 20_26 Turn Lane	point1749	1749	181	25	0	0	0	0	0	0	0	0
	point1310	1310	181	25	0	0	0	0	0	0	0	0
	point1311	1311	181	25	0	0	0	0	0	0	0	0
	point1750	1750										
WB Castlebury	point1323	1323	87	25	0	0	0	0	0	0	0	0
	point1324	1324	87	25	0	0	0	0	0	0	0	0
	point1325	1325	87	25	0	0	0	0	0	0	0	0
	point1326	1326	87	25	0	0	0	0	0	0	0	0
	point1327	1327										
WB Turn Castlebury	point1328	1328	74	25	0	0	0	0	0	0	0	0
	point1329	1329	74	25	0	0	0	0	0	0	0	0
	point1330	1330	74	25	0	0	0	0	0	0	0	0
	point1331	1331										

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

EB Turn Castlebury	point1797	1797	35	25	0	0	0	0	0	0	0	0
	point1340	1340	35	25	0	0	0	0	0	0	0	0
	point1341	1341	35	25	0	0	0	0	0	0	0	0
	point1343	1343										
EB Castlebury	point1344	1344	25	25	0	0	0	0	0	0	0	0
	point1345	1345	25	25	0	0	0	0	0	0	0	0
	point1347	1347	25	25	0	0	0	0	0	0	0	0
	point1349	1349										
EB Merge 2	point1354	1354	207	25	0	0	0	0	0	0	0	0
	point1355	1355	207	25	0	0	0	0	0	0	0	0
	point1356	1356	207	25	0	0	0	0	0	0	0	0
	point1357	1357	207	25	0	0	0	0	0	0	0	0
	point1358	1358	207	25	0	0	0	0	0	0	0	0
	point1359	1359	207	25	0	0	0	0	0	0	0	0
	point1360	1360	207	25	0	0	0	0	0	0	0	0
	point1361	1361										
WB CF 3	point1362	1362	203	25	0	0	0	0	0	0	0	0
	point1363	1363	203	25	0	0	0	0	0	0	0	0
	point1364	1364	203	25	0	0	0	0	0	0	0	0
	point1365	1365	203	25	0	0	0	0	0	0	0	0
	point1840	1840										
WB CF 4	point1371	1371	203	25	0	0	0	0	0	0	0	0
	point1372	1372	203	25	0	0	0	0	0	0	0	0
	point1373	1373	203	25	0	0	0	0	0	0	0	0
	point1374	1374										
WB Turn to Meridian NB	point1380	1380	83	25	0	0	0	0	0	0	0	0
	point1381	1381	83	25	0	0	0	0	0	0	0	0
	point1382	1382	83	25	0	0	0	0	0	0	0	0
	point1383	1383	83	25	0	0	0	0	0	0	0	0
	point1384	1384										
NB Turn 5	point1385	1385	50	25	0	0	0	0	0	0	0	0
	point1386	1386										
SB Turn 3	point1394	1394	32	25	0	0	0	0	0	0	0	0
	point1395	1395										
SB Turn Meridian to 2026	point1397	1397	32	25	0	0	0	0	0	0	0	0

	point1399	1399										
WB Merge 2	point1402	1402	163	25	0	0	0	0	0	0	0	0
	point1403	1403	163	25	0	0	0	0	0	0	0	0
	point1404	1404	163	25	0	0	0	0	0	0	0	0
	point1405	1405	163	25	0	0	0	0	0	0	0	0
	point1406	1406	163	25	0	0	0	0	0	0	0	0
	point1407	1407	163	25	0	0	0	0	0	0	0	0
	point1408	1408										
EB CF 2	point1409	1409	102	25	0	0	0	0	0	0	0	0
	point1410	1410	102	25	0	0	0	0	0	0	0	0
	point1411	1411	102	25	0	0	0	0	0	0	0	0
	point1412	1412	102	25	0	0	0	0	0	0	0	0
	point1413	1413	102	25	0	0	0	0	0	0	0	0
	point1811	1811										
EB Turn to Meridian	point1419	1419	328	25	0	0	0	0	0	0	0	0
	point1420	1420	328	25	0	0	0	0	0	0	0	0
	point1421	1421										
WB fox run	point1424	1424	59	25	0	0	0	0	0	0	0	0
	point1425	1425	59	25	0	0	0	0	0	0	0	0
	point1426	1426	59	25	0	0	0	0	0	0	0	0
	point1427	1427	59	25	0	0	0	0	0	0	0	0
	point1428	1428										
WB Tfox run	point1429	1429	43	25	0	0	0	0	0	0	0	0
	point1430	1430	43	25	0	0	0	0	0	0	0	0
	point1432	1432										
EB Turn 8	point1443	1443	59	25	0	0	0	0	0	0	0	0
	point1444	1444	59	25	0	0	0	0	0	0	0	0
	point1445	1445	59	25	0	0	0	0	0	0	0	0
	point1446	1446										
EB fox run	point1447	1447	51	25	0	0	0	0	0	0	0	0
	point1448	1448	51	25	0	0	0	0	0	0	0	0
	point1449	1449	51	25	0	0	0	0	0	0	0	0
	point1450	1450	51	25	0	0	0	0	0	0	0	0
	point1451	1451										
WB 1 Locust Grove to Meridian	point1739	1739	1056	55	85	55	49	55	12	55	12	55

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point951	951	1056	55	85	55	49	55	12	55	12	55
	point952	952	1056	55	85	55	49	55	12	55	12	55
	point953	953	1056	55	85	55	49	55	12	55	12	55
	point954	954	1056	55	85	55	49	55	12	55	12	55
	point955	955	1056	55	85	55	49	55	12	55	12	55
	point956	956	1056	55	85	55	49	55	12	55	12	55
	point957	957	1056	55	85	55	49	55	12	55	12	55
	point958	958	1056	55	85	55	49	55	12	55	12	55
	point959	959	1056	55	85	55	49	55	12	55	12	55
	point960	960	1056	55	85	55	49	55	12	55	12	55
	point961	961	1056	55	85	55	49	55	12	55	12	55
	point962	962	1056	55	85	55	49	55	12	55	12	55
	point963	963	1056	55	85	55	49	55	12	55	12	55
	point1779	1779	1056	55	85	55	49	55	12	55	12	55
	point1780	1780										
WB 2 Locust Grove to Meridian	point1740	1740	1056	55	85	55	49	55	12	55	12	55
	point1076	1076	1056	55	85	55	49	55	12	55	12	55
	point1077	1077	1056	55	85	55	49	55	12	55	12	55
	point1078	1078	1056	55	85	55	49	55	12	55	12	55
	point1079	1079	1056	55	85	55	49	55	12	55	12	55
	point1080	1080	1056	55	85	55	49	55	12	55	12	55
	point1081	1081	1056	55	85	55	49	55	12	55	12	55
	point1082	1082	1056	55	85	55	49	55	12	55	12	55
	point1083	1083	1056	55	85	55	49	55	12	55	12	55
	point1084	1084	1056	55	85	55	49	55	12	55	12	55
	point1085	1085	1056	55	85	55	49	55	12	55	12	55
	point1086	1086	1056	55	85	55	49	55	12	55	12	55
	point1087	1087	1056	55	85	55	49	55	12	55	12	55
	point1776	1776	1056	55	85	55	49	55	12	55	12	55
	point1773	1773	1056	55	85	55	49	55	12	55	12	55
	point1777	1777	1056	55	85	55	49	55	12	55	12	55
	point1774	1774										
WB Locust Grove to Merdidan	point1741	1741	1056	55	85	55	49	55	12	55	12	55
	point1159	1159	1056	55	85	55	49	55	12	55	12	55
	point1160	1160	1056	55	85	55	49	55	12	55	12	55

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point1161	1161	1056	55	85	55	49	55	12	55	12	55
	point1162	1162	1056	55	85	55	49	55	12	55	12	55
	point1163	1163	1056	55	85	55	49	55	12	55	12	55
	point1164	1164	1056	55	85	55	49	55	12	55	12	55
	point1165	1165	1056	55	85	55	49	55	12	55	12	55
	point1166	1166	1056	55	85	55	49	55	12	55	12	55
	point1167	1167	1056	55	85	55	49	55	12	55	12	55
	point1168	1168	1056	55	85	55	49	55	12	55	12	55
	point1169	1169	1056	55	85	55	49	55	12	55	12	55
	point1170	1170	1056	55	85	55	49	55	12	55	12	55
	point1171	1171	1056	55	85	55	49	55	12	55	12	55
	point1765	1765										
WB CF 1 at Locust Grove-2	point1270	1270	254	25	0	0	0	0	0	0	0	0
	point1271	1271	254	25	0	0	0	0	0	0	0	0
	point1272	1272	254	25	0	0	0	0	0	0	0	0
	point1273	1273	254	25	0	0	0	0	0	0	0	0
	point1274	1274										
WB CF 2 at Locust Grove-2	point1744	1744	253	25	0	0	0	0	0	0	0	0
	point1263	1263	253	25	0	0	0	0	0	0	0	0
	point1264	1264	253	25	0	0	0	0	0	0	0	0
	point1265	1265										
EB 3 Locust Grove to Eagle	point1746	1746	817	50	66	50	38	50	9	50	9	50
	point926	926	817	50	66	50	38	50	9	50	9	50
	point927	927	817	50	66	50	38	50	9	50	9	50
	point928	928	817	50	66	50	38	50	9	50	9	50
	point929	929	817	50	66	50	38	50	9	50	9	50
	point930	930	817	50	66	50	38	50	9	50	9	50
	point931	931	817	50	66	50	38	50	9	50	9	50
	point932	932	817	50	66	50	38	50	9	50	9	50
	point933	933	817	50	66	50	38	50	9	50	9	50
	point934	934	817	50	66	50	38	50	9	50	9	50
	point935	935	817	50	66	50	38	50	9	50	9	50
	point936	936	817	50	66	50	38	50	9	50	9	50
	point937	937										
EB 2 Locust Grove to Eagle	point1747	1747	817	50	66	50	38	50	9	50	9	50

	point841	841	817	50	66	50	38	50	9	50	9	50
	point842	842	817	50	66	50	38	50	9	50	9	50
	point843	843	817	50	66	50	38	50	9	50	9	50
	point844	844	817	50	66	50	38	50	9	50	9	50
	point845	845	817	50	66	50	38	50	9	50	9	50
	point846	846	817	50	66	50	38	50	9	50	9	50
	point847	847	817	50	66	50	38	50	9	50	9	50
	point848	848	817	50	66	50	38	50	9	50	9	50
	point849	849	817	50	66	50	38	50	9	50	9	50
	point850	850	817	50	66	50	38	50	9	50	9	50
	point851	851	817	50	66	50	38	50	9	50	9	50
	point852	852	817	50	66	50	38	50	9	50	9	50
	point853	853										
Main 1-2	point1748	1748	817	50	66	50	38	50	9	50	9	50
	point754	754	817	50	66	50	38	50	9	50	9	50
	point755	755	817	50	66	50	38	50	9	50	9	50
	point756	756	817	50	66	50	38	50	9	50	9	50
	point757	757	817	50	66	50	38	50	9	50	9	50
	point758	758	817	50	66	50	38	50	9	50	9	50
	point759	759	817	50	66	50	38	50	9	50	9	50
	point760	760	817	50	66	50	38	50	9	50	9	50
	point761	761	817	50	66	50	38	50	9	50	9	50
	point762	762	817	50	66	50	38	50	9	50	9	50
	point765	765	817	50	66	50	38	50	9	50	9	50
	point766	766	817	50	66	50	38	50	9	50	9	50
	point767	767	817	50	66	50	38	50	9	50	9	50
	point768	768										
Locust Grove to 20_26 Turn Lane-2	point1312	1312	181	25	0	0	0	0	0	0	0	0
	point1313	1313	181	25	0	0	0	0	0	0	0	0
	point1314	1314	181	25	0	0	0	0	0	0	0	0
	point1315	1315										
EB CF 1-2	point1808	1808	73	25	0	0	0	0	0	0	0	0
	point1304	1304	73	25	0	0	0	0	0	0	0	0
	point1305	1305	73	25	0	0	0	0	0	0	0	0
	point1753	1753										

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

EB 2 Meridian to Locust Grove	point1759	1759	814	55	66	55	37	55	9	55	9	55
	point828	828	814	55	66	55	37	55	9	55	9	55
	point829	829	814	55	66	55	37	55	9	55	9	55
	point830	830	814	55	66	55	37	55	9	55	9	55
	point831	831	814	55	66	55	37	55	9	55	9	55
	point832	832	814	55	66	55	37	55	9	55	9	55
	point833	833	814	55	66	55	37	55	9	55	9	55
	point834	834	814	55	66	55	37	55	9	55	9	55
	point835	835	814	55	66	55	37	55	9	55	9	55
	point836	836	814	55	66	55	37	55	9	55	9	55
	point837	837	814	55	66	55	37	55	9	55	9	55
	point838	838	814	55	66	55	37	55	9	55	9	55
	point839	839	814	55	66	55	37	55	9	55	9	55
	point840	840										
EB 3 Meridian to Locust Grove	point741	741	814	55	66	55	37	55	9	55	9	55
	point742	742	814	55	66	55	37	55	9	55	9	55
	point743	743	814	55	66	55	37	55	9	55	9	55
	point744	744	814	55	66	55	37	55	9	55	9	55
	point745	745	814	55	66	55	37	55	9	55	9	55
	point746	746	814	55	66	55	37	55	9	55	9	55
	point747	747	814	55	66	55	37	55	9	55	9	55
	point748	748	814	55	66	55	37	55	9	55	9	55
	point749	749	814	55	66	55	37	55	9	55	9	55
	point750	750	814	55	66	55	37	55	9	55	9	55
	point751	751	814	55	66	55	37	55	9	55	9	55
	point752	752	814	55	66	55	37	55	9	55	9	55
	point753	753										
WB Locust Grove to Merdidan-2	point1772	1772	1051	55	85	55	48	55	12	55	12	55
	point1771	1771	1051	55	85	55	48	55	12	55	12	55
	point1769	1769	1051	55	85	55	48	55	12	55	12	55
	point1172	1172	1051	55	85	55	48	55	12	55	12	55
	point1173	1173	1051	55	85	55	48	55	12	55	12	55
	point1174	1174	1051	55	85	55	48	55	12	55	12	55
	point1175	1175	1051	55	85	55	48	55	12	55	12	55
	point1176	1176	1051	55	85	55	48	55	12	55	12	55

	point1177	1177	1051	55	85	55	48	55	12	55	12	55
	point1178	1178	1051	55	85	55	48	55	12	55	12	55
	point1179	1179	1051	55	85	55	48	55	12	55	12	55
	point1180	1180	1051	55	85	55	48	55	12	55	12	55
	point1181	1181	1051	55	85	55	48	55	12	55	12	55
	point1182	1182	1051	55	85	55	48	55	12	55	12	55
	point1183	1183	1051	55	85	55	48	55	12	55	12	55
	point1184	1184	1051	55	85	55	48	55	12	55	12	55
	point1185	1185	1051	55	85	55	48	55	12	55	12	55
	point1186	1186										
WB2 Meridian to Linder	point1775	1775	1051	55	85	55	48	55	12	55	12	55
	point1089	1089	1051	55	85	55	48	55	12	55	12	55
	point1090	1090	1051	55	85	55	48	55	12	55	12	55
	point1091	1091	1051	55	85	55	48	55	12	55	12	55
	point1092	1092	1051	55	85	55	48	55	12	55	12	55
	point1093	1093	1051	55	85	55	48	55	12	55	12	55
	point1094	1094	1051	55	85	55	48	55	12	55	12	55
	point1095	1095	1051	55	85	55	48	55	12	55	12	55
	point1096	1096	1051	55	85	55	48	55	12	55	12	55
	point1097	1097	1051	55	85	55	48	55	12	55	12	55
	point1098	1098	1051	55	85	55	48	55	12	55	12	55
	point1099	1099	1051	55	85	55	48	55	12	55	12	55
	point1100	1100	1051	55	85	55	48	55	12	55	12	55
	point1101	1101	1051	55	85	55	48	55	12	55	12	55
	point1102	1102	1051	55	85	55	48	55	12	55	12	55
	point1103	1103	1051	55	85	55	48	55	12	55	12	55
	point1819	1819										
WB Meridian to Linder	point1781	1781	1051	55	85	55	48	55	12	55	12	55
	point964	964	1051	55	85	55	48	55	12	55	12	55
	point965	965	1051	55	85	55	48	55	12	55	12	55
	point966	966	1051	55	85	55	48	55	12	55	12	55
	point967	967	1051	55	85	55	48	55	12	55	12	55
	point968	968	1051	55	85	55	48	55	12	55	12	55
	point969	969	1051	55	85	55	48	55	12	55	12	55
	point970	970	1051	55	85	55	48	55	12	55	12	55

	point971	971	1051	55	85	55	48	55	12	55	12	55
	point972	972	1051	55	85	55	48	55	12	55	12	55
	point973	973	1051	55	85	55	48	55	12	55	12	55
	point974	974	1051	55	85	55	48	55	12	55	12	55
	point975	975	1051	55	85	55	48	55	12	55	12	55
	point976	976	1051	55	85	55	48	55	12	55	12	55
	point977	977	1051	55	85	55	48	55	12	55	12	55
	point978	978	1051	55	85	55	48	55	12	55	12	55
	point1821	1821	1051	55	85	55	48	55	12	55	12	55
	point979	979										
EB CF 2-2	point1813	1813	102	25	0	0	0	0	0	0	0	0
	point1414	1414	102	25	0	0	0	0	0	0	0	0
	point1415	1415	102	25	0	0	0	0	0	0	0	0
	point1416	1416	102	25	0	0	0	0	0	0	0	0
	point1844	1844	102	25	0	0	0	0	0	0	0	0
	point1845	1845										
EB 1 Linder to Meridian	point1816	1816	786	55	64	55	37	55	9	55	9	55
	point726	726	786	55	64	55	37	55	9	55	9	55
	point727	727	786	55	64	55	37	55	9	55	9	55
	point728	728	786	55	64	55	37	55	9	55	9	55
	point729	729	786	55	64	55	37	55	9	55	9	55
	point730	730	786	55	64	55	37	55	9	55	9	55
	point731	731	786	55	64	55	37	55	9	55	9	55
	point732	732	786	55	64	55	37	55	9	55	9	55
	point733	733	786	55	64	55	37	55	9	55	9	55
	point734	734	786	55	64	55	37	55	9	55	9	55
	point735	735	786	55	64	55	37	55	9	55	9	55
	point736	736	786	55	64	55	37	55	9	55	9	55
	point737	737	786	55	64	55	37	55	9	55	9	55
	point738	738	786	55	64	55	37	55	9	55	9	55
	point739	739	786	55	64	55	37	55	9	55	9	55
	point740	740	786	55	64	55	37	55	9	55	9	55
	point1760	1760										
EB Meridian to Linder	point1817	1817	786	55	64	55	37	55	9	55	9	55
	point813	813	786	55	64	55	37	55	9	55	9	55

	point814	814	786	55	64	55	37	55	9	55	9	55
	point815	815	786	55	64	55	37	55	9	55	9	55
	point816	816	786	55	64	55	37	55	9	55	9	55
	point817	817	786	55	64	55	37	55	9	55	9	55
	point818	818	786	55	64	55	37	55	9	55	9	55
	point819	819	786	55	64	55	37	55	9	55	9	55
	point820	820	786	55	64	55	37	55	9	55	9	55
	point821	821	786	55	64	55	37	55	9	55	9	55
	point822	822	786	55	64	55	37	55	9	55	9	55
	point823	823	786	55	64	55	37	55	9	55	9	55
	point824	824	786	55	64	55	37	55	9	55	9	55
	point825	825	786	55	64	55	37	55	9	55	9	55
	point826	826	786	55	64	55	37	55	9	55	9	55
	point827	827										
EB 3 Linder to Meridian	point1823	1823	795	55	64	55	37	55	9	55	9	55
	point1824	1824	795	55	64	55	37	55	9	55	9	55
	point1825	1825	795	55	64	55	37	55	9	55	9	55
	point1826	1826	795	55	64	55	37	55	9	55	9	55
	point1827	1827	795	55	64	55	37	55	9	55	9	55
	point1828	1828	795	55	64	55	37	55	9	55	9	55
	point1829	1829	795	55	64	55	37	55	9	55	9	55
	point1830	1830	795	55	64	55	37	55	9	55	9	55
	point1831	1831	795	55	64	55	37	55	9	55	9	55
	point1832	1832	795	55	64	55	37	55	9	55	9	55
	point1833	1833	795	55	64	55	37	55	9	55	9	55
	point1834	1834	795	55	64	55	37	55	9	55	9	55
	point1835	1835										
WB CF 4-2	point1862	1862	203	25	0	0	0	0	0	0	0	0
	point1863	1863	203	25	0	0	0	0	0	0	0	0
	point1838	1838	203	25	0	0	0	0	0	0	0	0
	point1376	1376	203	25	0	0	0	0	0	0	0	0
	point1377	1377	203	25	0	0	0	0	0	0	0	0
	point1378	1378										
WB CF 3-2	point1864	1864	203	25	0	0	0	0	0	0	0	0
	point1865	1865	203	25	0	0	0	0	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point1367	1367	203	25	0	0	0	0	0	0	0	0
	point1368	1368	203	25	0	0	0	0	0	0	0	0
	point1369	1369										
EB 3 Meridian to Locust Grove	point1847	1847	814	55	66	55	37	55	9	55	9	55
	point1848	1848	814	55	66	55	37	55	9	55	9	55
	point1849	1849	814	55	66	55	37	55	9	55	9	55
	point1850	1850	814	55	66	55	37	55	9	55	9	55
	point1851	1851	814	55	66	55	37	55	9	55	9	55
	point1852	1852	814	55	66	55	37	55	9	55	9	55
	point1853	1853	814	55	66	55	37	55	9	55	9	55
	point1854	1854	814	55	66	55	37	55	9	55	9	55
	point1855	1855	814	55	66	55	37	55	9	55	9	55
	point1856	1856	814	55	66	55	37	55	9	55	9	55
	point1857	1857	814	55	66	55	37	55	9	55	9	55
	point1858	1858	814	55	66	55	37	55	9	55	9	55
	point1859	1859	814	55	66	55	37	55	9	55	9	55
	point1860	1860										
Fox Run SB N	point1866	1866	53	30	0	0	0	0	0	0	0	0
	point1867	1867										
Fox Run NB N	point1868	1868	43	30	0	0	0	0	0	0	0	0
	point1869	1869										
Fox Run SB S	point1870	1870	118	30	0	0	0	0	0	0	0	0
	point1871	1871										
Fox Run NB S	point1872	1872	113	30	0	0	0	0	0	0	0	0
	point1873	1873										
Castlebury SB	point1874	1874	88	30	0	0	0	0	0	0	0	0
	point1875	1875										
Castlebury NB N	point1876	1876	103	30	0	0	0	0	0	0	0	0
	point1877	1877										
Castlebury S	point1878	1878	124	30	0	0	0	0	0	0	0	0
	point1879	1879										
Roadway186	point1880	1880	98	30	0	0	0	0	0	0	0	0
	point1881	1881										

RESULTS: SOUND LEVELS

20_26 Corridor Study

AXIOM POINTS
Kari Frederick

7 July 2015
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Build 1with Berms
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
107	25	10	50.3	69.2	66	18.9	10	Both	69.2	0.0	7	-7.0
105	29	1	61.5	68.6	66	7.1	10	Snd Lvl	68.6	0.0	7	-7.0
104	30	1	57.9	69.5	66	11.6	10	Both	69.5	0.0	7	-7.0
106	31	1	61.7	64.2	66	2.5	10	----	64.2	0.0	7	-7.0
103	32	2	54.1	66.2	66	12.1	10	Both	66.2	0.0	7	-7.0
100	33	1	65.1	70.1	66	5.0	10	Snd Lvl	70.1	0.0	7	-7.0
101	34	1	65.5	67.4	66	1.9	10	Snd Lvl	67.4	0.0	7	-7.0
102	35	4	51.9	64.8	66	12.9	10	Sub'l Inc	64.8	0.0	7	-7.0
99	37	1	60.2	71.0	66	10.8	10	Both	71.0	0.0	7	-7.0
98	44	1	56.4	70.7	66	14.3	10	Both	70.7	0.0	7	-7.0
97	67	1	0.0	60.6	66	60.6	10	----	60.6	0.0	7	-7.0
96	68	1	0.0	59.1	66	59.1	10	----	59.1	0.0	7	-7.0
95	69	1	0.0	58.2	66	58.2	10	----	58.2	0.0	7	-7.0
94	70	1	0.0	75.2	66	75.2	10	Snd Lvl	75.2	0.0	7	-7.0
93	71	1	0.0	75.3	66	75.3	10	Snd Lvl	75.3	0.0	7	-7.0
92	72	1	0.0	73.0	66	73.0	10	Snd Lvl	73.0	0.0	7	-7.0
91	74	1	0.0	61.5	66	61.5	10	----	61.5	0.0	7	-7.0
90	75	1	0.0	71.4	66	71.4	10	Snd Lvl	71.4	0.0	7	-7.0
89	76	1	0.0	63.5	66	63.5	10	----	63.5	0.0	7	-7.0
88	77	1	0.0	77.9	66	77.9	10	Snd Lvl	77.9	0.0	7	-7.0
87	78	1	0.0	69.7	66	69.7	10	Snd Lvl	69.7	0.0	7	-7.0
86	79	1	0.0	72.0	66	72.0	10	Snd Lvl	72.0	0.0	7	-7.0
85	80	1	0.0	71.2	66	71.2	10	Snd Lvl	71.2	0.0	7	-7.0

RESULTS: SOUND LEVELS

20_26 Corridor Study

84	87	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	7	-7.0
108	89	1	0.0	72.2	66	72.2	10	Snd Lvl	72.2	0.0	7	-7.0
109	90	1	0.0	71.6	66	71.6	10	Snd Lvl	71.6	0.0	7	-7.0
111	91	1	0.0	65.3	66	65.3	10	----	65.3	0.0	7	-7.0
110	92	1	0.0	73.2	66	73.2	10	Snd Lvl	73.2	0.0	7	-7.0

Dwelling Units	# DUs	Noise Reduction		
		Min	Avg	Max
		dB	dB	dB
All Selected	41	0.0	0.0	0.0
All Impacted	34	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Build 1with Berms

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
WB Turn 7	12.0	point1424	1424	2,453,079.2	728,280.1	2,583.00				Average	
		point1425	1425	2,452,929.2	728,275.8	2,583.00				Average	
		point1426	1426	2,452,779.2	728,274.3	2,583.00				Average	
		point1427	1427	2,452,629.2	728,276.2	2,583.00				Average	
		point1428	1428	2,452,584.5	728,276.8	2,583.00					
WB Turn 8	12.0	point1429	1429	2,452,855.0	728,314.9	2,583.00				Average	
		point1430	1430	2,452,705.2	728,322.5	2,583.00				Average	
		point1432	1432	2,452,549.8	728,324.0	2,583.00					
WB Locust Grove to Merdidan-2	12.0	point1772	1772	2,454,922.0	728,240.2	2,593.00				Average	
		point1771	1771	2,454,880.5	728,239.6	2,593.00				Average	
		point1769	1769	2,454,797.0	728,238.2	2,593.00				Average	
		point1172	1172	2,454,697.0	728,236.7	2,593.00				Average	
		point1173	1173	2,454,297.0	728,233.8	2,592.00				Average	
		point1174	1174	2,453,897.2	728,244.8	2,590.00				Average	
		point1175	1175	2,453,497.8	728,267.1	2,589.00				Average	
		point1176	1176	2,453,098.2	728,284.5	2,588.00				Average	
		point1177	1177	2,452,698.2	728,288.1	2,588.00				Average	
		point1178	1178	2,452,298.2	728,290.3	2,587.00				Average	
		point1179	1179	2,451,898.2	728,293.1	2,586.00				Average	
		point1180	1180	2,451,498.2	728,296.6	2,584.00				Average	
		point1181	1181	2,451,098.2	728,299.9	2,581.00				Average	
		point1182	1182	2,450,698.2	728,303.0	2,581.00				Average	
		point1183	1183	2,450,298.2	728,301.9	2,581.00				Average	
		point1184	1184	2,449,898.5	728,289.4	2,581.00				Average	
		point1185	1185	2,449,498.5	728,287.5	2,581.00				Average	

		point1186	1186	2,449,098.5	728,291.1	2,581.00				
WB2 Meridian to Linder	12.0	point1775	1775	2,454,806.0	728,250.6	2,593.00				Average
		point1089	1089	2,454,706.0	728,249.2	2,593.00				Average
		point1090	1090	2,454,306.0	728,246.2	2,592.00				Average
		point1091	1091	2,453,906.2	728,255.6	2,590.00				Average
		point1092	1092	2,453,507.0	728,279.9	2,589.00				Average
		point1093	1093	2,453,107.2	728,294.6	2,588.00				Average
		point1094	1094	2,452,707.5	728,298.6	2,588.00				Average
		point1095	1095	2,452,307.5	728,302.1	2,587.00				Average
		point1096	1096	2,451,907.5	728,305.6	2,586.00				Average
		point1097	1097	2,451,507.5	728,308.5	2,584.00				Average
		point1098	1098	2,451,107.5	728,311.5	2,581.00				Average
		point1099	1099	2,450,707.5	728,313.8	2,581.00				Average
		point1100	1100	2,450,307.5	728,314.4	2,581.00				Average
		point1101	1101	2,449,907.8	728,301.5	2,581.00				Average
		point1102	1102	2,449,507.8	728,299.3	2,581.00				Average
		point1103	1103	2,449,107.8	728,303.4	2,581.00				Average
		point1819	1819	2,448,907.8	728,307.0	2,581.00				
WB Meridian to Linder	12.0	point1781	1781	2,454,801.0	728,263.5	2,595.00				Average
		point964	964	2,454,701.0	728,262.4	2,593.00				Average
		point965	965	2,454,301.0	728,258.6	2,592.00				Average
		point966	966	2,453,901.2	728,269.7	2,590.00				Average
		point967	967	2,453,502.0	728,291.4	2,589.00				Average
		point968	968	2,453,102.2	728,306.8	2,588.00				Average
		point969	969	2,452,702.2	728,311.6	2,588.00				Average
		point970	970	2,452,302.2	728,314.7	2,587.00				Average
		point971	971	2,451,902.2	728,317.3	2,586.00				Average
		point972	972	2,451,502.2	728,320.2	2,584.00				Average
		point973	973	2,451,102.2	728,323.5	2,581.00				Average
		point974	974	2,450,702.2	728,326.9	2,581.00				Average
		point975	975	2,450,302.2	728,326.3	2,581.00				Average
		point976	976	2,449,902.5	728,312.7	2,581.00				Average
		point977	977	2,449,502.5	728,312.0	2,581.00				Average
		point978	978	2,449,102.5	728,315.8	2,581.00				Average
		point1821	1821	2,448,902.5	728,319.6	2,581.00				Average
		point979	979	2,448,702.8	728,323.4	2,581.00				
EB 1 Linder to Meridian	12.0	point1816	1816	2,448,914.0	728,229.9	2,574.00				Average
		point726	726	2,449,114.0	728,228.0	2,578.00				Average

		point727	727	2,449,513.8	728,223.7	2,581.00				Average
		point728	728	2,449,913.8	728,222.3	2,585.00				Average
		point729	729	2,450,313.8	728,228.0	2,588.00				Average
		point730	730	2,450,713.8	728,227.0	2,589.00				Average
		point731	731	2,451,113.8	728,224.3	2,589.00				Average
		point732	732	2,451,513.8	728,220.7	2,590.00				Average
		point733	733	2,451,913.8	728,217.3	2,592.00				Average
		point734	734	2,452,313.8	728,214.2	2,593.00				Average
		point735	735	2,452,713.8	728,211.5	2,593.00				Average
		point736	736	2,453,113.8	728,208.6	2,593.00				Average
		point737	737	2,453,513.5	728,199.5	2,593.00				Average
		point738	738	2,453,913.0	728,178.8	2,593.00				Average
		point739	739	2,454,312.8	728,170.1	2,593.00				Average
		point740	740	2,454,712.8	728,173.3	2,593.00				Average
		point1760	1760	2,454,846.0	728,175.2	2,593.00				
EB Meridian to Linder	12.0	point1817	1817	2,448,726.2	728,244.0	2,574.00				Average
		point813	813	2,449,114.2	728,239.4	2,578.00				Average
		point814	814	2,449,514.2	728,234.6	2,581.00				Average
		point815	815	2,449,914.2	728,233.8	2,585.00				Average
		point816	816	2,450,314.2	728,237.6	2,588.00				Average
		point817	817	2,450,714.2	728,238.6	2,589.00				Average
		point818	818	2,451,114.2	728,235.8	2,589.00				Average
		point819	819	2,451,514.2	728,232.6	2,590.00				Average
		point820	820	2,451,914.2	728,229.4	2,592.00				Average
		point821	821	2,452,314.2	728,226.1	2,593.00				Average
		point822	822	2,452,714.0	728,223.0	2,593.00				Average
		point823	823	2,453,114.0	728,219.9	2,593.00				Average
		point824	824	2,453,514.0	728,211.5	2,593.00				Average
		point825	825	2,453,913.5	728,190.8	2,593.00				Average
		point826	826	2,454,313.2	728,182.5	2,593.00				Average
		point827	827	2,454,713.2	728,185.1	2,593.00				
EB 3 Linder to Fox Run	12.0	point1823	1823	2,449,916.5	728,246.1	2,574.00				Average
		point1824	1824	2,450,316.5	728,252.0	2,578.00				Average
		point1825	1825	2,450,716.5	728,250.8	2,581.00				Average
		point1826	1826	2,451,116.5	728,247.2	2,585.00				Average
		point1827	1827	2,451,516.5	728,243.5	2,588.00				Average
		point1828	1828	2,451,916.5	728,241.3	2,589.00				Average
		point1829	1829	2,452,316.5	728,239.2	2,589.00				Average

		point1830	1830	2,452,716.5	728,235.3	2,590.00				Average
		point1831	1831	2,453,116.5	728,231.1	2,592.00				Average
		point1832	1832	2,453,516.2	728,223.7	2,593.00				Average
		point1833	1833	2,453,915.8	728,202.8	2,593.00				Average
		point1834	1834	2,454,315.5	728,193.6	2,593.00				Average
		point1835	1835	2,454,715.5	728,197.1	2,593.00				
Fox Run S NB	12.0	point1836	1836	2,452,538.0	728,119.6	2,583.00				Average
		point2518	2518	2,452,538.8	728,157.1	2,583.00				Average
		point2519	2519	2,452,539.5	728,184.6	2,583.00				
Fox Run	12.0	point1839	1839	2,452,517.5	728,400.9	2,583.00				Average
		point2511	2511	2,452,517.0	728,350.9	2,583.00				
EB Turn 8	12.0	point1842	1842	2,452,188.2	728,210.6	2,583.00				Average
		point1843	1843	2,452,338.0	728,202.0	2,583.00				Average
		point1844	1844	2,452,488.0	728,200.1	2,583.00				Average
		point1845	1845	2,452,508.2	728,199.9	2,583.00				
WB Turn Lane Fox Run	12.0	point1846	1846	2,451,975.5	728,243.7	2,583.00				Average
		point1847	1847	2,452,125.2	728,252.7	2,583.00				Average
		point1848	1848	2,452,275.2	728,251.7	2,583.00				Average
		point1849	1849	2,452,425.2	728,250.7	2,583.00				Average
		point1850	1850	2,452,480.2	728,250.3	2,583.00				
EB Merge 3	12.0	point1851	1851	2,449,504.2	727,722.5	2,574.00				Average
		point1852	1852	2,449,509.8	727,872.3	2,574.00				Average
		point1853	1853	2,449,508.5	728,022.3	2,574.00				Average
		point1854	1854	2,449,550.5	728,155.8	2,574.00				Average
		point1855	1855	2,449,699.2	728,163.2	2,574.00				Average
		point1856	1856	2,449,849.0	728,164.1	2,574.00				Average
		point1857	1857	2,449,995.0	728,196.6	2,574.00				Average
		point1858	1858	2,450,143.2	728,213.2	2,574.00				Average
		point1859	1859	2,450,293.2	728,215.3	2,574.00				Average
		point1860	1860	2,450,443.2	728,217.4	2,574.00				Average
		point1861	1861	2,450,593.0	728,222.3	2,574.00				
WB CF 5	12.0	point1862	1862	2,450,622.8	728,300.0	2,574.00				Average
		point1863	1863	2,450,473.0	728,290.1	2,574.00				Average
		point1864	1864	2,450,323.5	728,280.3	2,574.00				Average
		point1865	1865	2,450,173.5	728,273.5	2,574.00				Average
		point1866	1866	2,450,024.0	728,266.2	2,574.00				Average
		point2530	2530	2,449,991.2	728,248.8	2,574.00				
WB CF 6	12.0	point1870	1870	2,450,458.2	728,292.5	2,574.00				Average

		point1871	1871	2,450,308.2	728,288.4	2,574.00				Average
		point1872	1872	2,450,158.2	728,284.2	2,574.00				Average
		point1873	1873	2,450,008.8	728,276.6	2,574.00				Average
		point2523	2523	2,449,990.2	728,266.4	2,574.00				Average
		point2524	2524	2,449,971.5	728,256.1	2,574.00				
EB Turn Linder	12.0	point1878	1878	2,450,201.8	728,328.1	2,574.00				Average
		point1879	1879	2,450,051.8	728,330.7	2,574.00				Average
		point1880	1880	2,449,901.8	728,327.7	2,574.00				Average
		point1881	1881	2,449,751.8	728,324.6	2,574.00				Average
		point1882	1882	2,449,603.0	728,329.5	2,574.00				Average
		point1883	1883	2,449,558.8	728,461.8	2,574.00				Average
		point1884	1884	2,449,563.5	728,611.7	2,574.00				Average
		point1885	1885	2,449,538.2	728,758.9	2,574.00				Average
		point1886	1886	2,449,529.2	728,907.7	2,574.00				Average
		point1887	1887	2,449,538.5	729,057.4	2,574.00				Average
		point1888	1888	2,449,548.8	729,207.0	2,574.00				Average
		point1889	1889	2,449,554.8	729,356.9	2,574.00				Average
		point1890	1890	2,449,556.2	729,506.9	2,574.00				Average
		point1891	1891	2,449,555.8	729,656.9	2,574.00				Average
		point1892	1892	2,449,553.5	729,806.8	2,574.00				
NB 9	12.0	point1893	1893	2,449,490.2	726,932.4	2,574.00				Average
		point1894	1894	2,449,492.0	727,082.3	2,574.00				Average
		point1895	1895	2,449,493.8	727,232.3	2,574.00				Average
		point1896	1896	2,449,496.0	727,382.3	2,574.00				Average
		point1897	1897	2,449,498.8	727,532.3	2,574.00				Average
		point1898	1898	2,449,500.5	727,682.3	2,574.00				Average
		point1899	1899	2,449,498.2	727,832.3	2,574.00				Average
		point1900	1900	2,449,494.5	727,982.2	2,574.00				Average
		point1901	1901	2,449,497.0	728,132.2	2,574.00				Average
		point1902	1902	2,449,498.8	728,182.2	2,574.00				
NB 10	12.0	point1903	1903	2,449,477.8	726,929.0	2,574.00				Average
		point1904	1904	2,449,479.0	727,079.0	2,574.00				Average
		point1905	1905	2,449,481.2	727,229.0	2,574.00				Average
		point1906	1906	2,449,483.5	727,379.0	2,574.00				Average
		point1907	1907	2,449,487.0	727,529.0	2,574.00				Average
		point1908	1908	2,449,489.2	727,678.9	2,574.00				Average
		point1909	1909	2,449,487.5	727,828.9	2,574.00				Average
		point1910	1910	2,449,483.8	727,978.8	2,574.00				Average

INPUT: ROADWAYS **20_26 Corridor Study**

		point1911	1911	2,449,484.0	728,128.8	2,574.00				Average
		point1912	1912	2,449,485.5	728,178.8	2,574.00				
SB 10	12.0	point1913	1913	2,449,503.5	729,888.5	2,574.00				Average
		point1914	1914	2,449,498.5	729,738.5	2,574.00				Average
		point1915	1915	2,449,494.0	729,588.6	2,574.00				Average
		point1916	1916	2,449,491.5	729,438.6	2,574.00				Average
		point1917	1917	2,449,487.5	729,288.7	2,574.00				Average
		point1918	1918	2,449,480.0	729,138.9	2,574.00				Average
		point1920	1920	2,449,470.0	728,989.2	2,574.00				Average
		point1921	1921	2,449,461.5	728,839.5	2,574.00				Average
		point1922	1922	2,449,456.0	728,689.6	2,574.00				Average
		point1923	1923	2,449,458.2	728,539.6	2,574.00				Average
		point1924	1924	2,449,460.0	728,389.6	2,574.00				Average
		point2544	2544	2,449,459.5	728,339.6	2,574.00				
SB CF3	12.0	point1934	1934	2,449,501.8	729,279.5	2,574.00				Average
		point1935	1935	2,449,503.2	729,129.6	2,574.00				Average
		point1936	1936	2,449,492.2	728,980.1	2,574.00				Average
		point1937	1937	2,449,484.8	728,830.2	2,574.00				Average
		point2538	2538	2,449,495.8	728,782.8	2,574.00				
SB CF 4	12.0	point1942	1942	2,449,500.0	729,299.4	2,574.00				Average
		point1943	1943	2,449,493.0	729,149.6	2,574.00				Average
		point1944	1944	2,449,481.8	729,000.0	2,574.00				Average
		point1945	1945	2,449,474.2	728,850.2	2,574.00				Average
		point1946	1946	2,449,493.5	728,704.2	2,574.00				
Roadway191	12.0	point1950	1950	2,448,459.2	728,275.1	2,574.00				Average
		point1951	1951	2,448,609.2	728,271.7	2,574.00				Average
		point1952	1952	2,448,759.2	728,268.3	2,574.00				Average
		point1953	1953	2,448,909.0	728,266.4	2,574.00				
EB CF 4	12.0	point1968	1968	2,448,261.5	728,273.5	2,574.00				Average
		point1969	1969	2,448,411.5	728,277.8	2,574.00				Average
		point1970	1970	2,448,561.5	728,282.2	2,574.00				Average
		point1971	1971	2,448,711.5	728,281.5	2,574.00				Average
		point1972	1972	2,448,861.5	728,278.9	2,574.00				
WB Merge 3	12.0	point1987	1987	2,449,477.8	729,890.1	2,574.00				Average
		point1988	1988	2,449,474.2	729,740.2	2,574.00				Average
		point1989	1989	2,449,470.5	729,590.2	2,574.00				Average
		point1990	1990	2,449,467.0	729,440.2	2,574.00				Average
		point1991	1991	2,449,463.8	729,290.3	2,574.00				Average

		point1992	1992	2,449,457.0	729,140.5	2,574.00				Average
		point1993	1993	2,449,445.8	728,990.9	2,574.00				Average
		point1994	1994	2,449,438.0	728,841.1	2,574.00				Average
		point1995	1995	2,449,434.8	728,691.1	2,574.00				Average
		point1996	1996	2,449,435.2	728,541.1	2,574.00				Average
		point1997	1997	2,449,413.0	728,398.1	2,574.00				Average
		point1998	1998	2,449,271.5	728,371.7	2,574.00				Average
		point1999	1999	2,449,121.5	728,373.9	2,574.00				Average
		point2000	2000	2,448,973.8	728,352.8	2,574.00				Average
		point2001	2001	2,448,826.0	728,331.2	2,574.00				Average
		point2002	2002	2,448,676.0	728,335.5	2,574.00				Average
		point2003	2003	2,448,526.2	728,342.1	2,574.00				Average
		point2004	2004	2,448,376.2	728,349.4	2,574.00				Average
		point2005	2005	2,448,226.5	728,355.9	2,574.00				Average
		point2006	2006	2,448,076.5	728,361.3	2,574.00				Average
		point2007	2007	2,447,926.5	728,362.3	2,574.00				Average
		point2008	2008	2,447,776.8	728,356.4	2,574.00				
NB CF 2	12.0	point2009	2009	2,449,482.0	727,331.1	2,574.00				Average
		point2010	2010	2,449,475.2	727,481.0	2,574.00				Average
		point2011	2011	2,449,476.2	727,631.0	2,574.00				Average
		point2012	2012	2,449,467.0	727,779.5	2,574.00				
EB Turn 10	12.0	point2016	2016	2,448,908.5	728,227.2	2,574.00				Average
		point2017	2017	2,449,058.2	728,216.7	2,574.00				Average
		point2018	2018	2,449,208.2	728,213.7	2,574.00				Average
		point2019	2019	2,449,357.2	728,204.4	2,574.00				Average
		point2020	2020	2,449,398.8	728,070.9	2,574.00				Average
		point2021	2021	2,449,398.0	727,921.0	2,574.00				Average
		point2022	2022	2,449,420.8	727,773.3	2,574.00				Average
		point2023	2023	2,449,436.0	727,624.9	2,574.00				Average
		point2024	2024	2,449,435.2	727,474.9	2,574.00				Average
		point2025	2025	2,449,434.2	727,324.9	2,574.00				Average
		point2026	2026	2,449,436.8	727,174.9	2,574.00				
Roadway196	12.0	point2027	2027	2,447,595.5	728,328.1	2,581.00				Average
		point2028	2028	2,447,445.8	728,319.9	2,581.00				Average
		point2029	2029	2,447,295.8	728,321.7	2,581.00				Average
		point2030	2030	2,447,145.8	728,323.4	2,581.00				Average
		point2031	2031	2,446,995.8	728,325.2	2,581.00				
Long Lake	12.0	point2035	2035	2,446,948.5	728,177.5	2,568.00				Average

		point2036	2036	2,446,951.2	728,258.5	2,568.00				
SB 11	12.0	point2038	2038	2,446,911.5	728,449.7	2,568.00			Average	
		point2552	2552	2,446,910.0	728,374.7	2,568.00				
EB 12	12.0	point2041	2041	2,446,564.8	728,262.7	2,581.00			Average	
		point2044	2044	2,446,714.2	728,251.9	2,581.00			Average	
		point2042	2042	2,446,864.2	728,249.9	2,581.00			Average	
		point2043	2043	2,446,897.2	728,249.5	2,581.00				
Wb Turn	12.0	point2064	2064	2,441,949.8	728,421.6	2,568.00			Average	
		point2065	2065	2,441,800.0	728,432.0	2,568.00			Average	
		point2066	2066	2,441,650.2	728,434.9	2,568.00			Average	
		point2067	2067	2,441,610.5	728,435.6	2,568.00				
Roadway205	12.0	point2068	2068	2,440,802.2	728,359.5	2,558.00			Average	
		point2069	2069	2,440,952.0	728,365.1	2,558.00			Average	
		point2070	2070	2,441,102.0	728,363.9	2,558.00			Average	
		point2071	2071	2,441,252.0	728,362.5	2,558.00			Average	
		point2072	2072	2,441,402.0	728,361.0	2,558.00				
Tree Farm NB	12.0	point2077	2077	2,441,603.0	728,433.8	2,568.00			Average	
		point2079	2079	2,441,605.5	728,569.6	2,568.00				
SB 15	12.0	point2081	2081	2,441,561.5	728,569.6	2,568.00			Average	
		point2080	2080	2,441,565.0	728,433.8	2,568.00				
NB 17	12.0	point2092	2092	2,438,955.5	728,266.0	2,548.00			Average	
		point2569	2569	2,438,956.0	728,341.0	2,548.00				
BlackCat SB	12.0	point2099	2099	2,438,934.0	728,543.2	2,542.00			Average	
		point2562	2562	2,438,933.5	728,505.7	2,542.00				
EB Turn 15	12.0	point2102	2102	2,438,578.2	728,355.4	2,545.00			Average	
		point2103	2103	2,438,728.0	728,345.4	2,545.00			Average	
		point2104	2104	2,438,878.0	728,343.5	2,545.00				
EB 2 Long Lake to Linder	12.0	point2110	2110	2,447,114.8	728,272.0	2,581.00			Average	
		point2111	2111	2,447,514.5	728,268.3	2,581.00			Average	
		point2112	2112	2,447,914.5	728,264.1	2,581.00			Average	
		point2113	2113	2,448,314.5	728,257.6	2,581.00			Average	
		point2114	2114	2,448,714.2	728,244.0	2,581.00				
EB 2 Long Lake to 10 Mile	12.0	point2117	2117	2,444,314.8	728,300.9	2,581.00			Average	
		point2118	2118	2,444,714.8	728,295.5	2,581.00			Average	
		point2119	2119	2,445,114.8	728,291.7	2,581.00			Average	
		point2120	2120	2,445,514.8	728,286.8	2,581.00			Average	
		point2121	2121	2,445,914.8	728,283.2	2,581.00			Average	
		point2122	2122	2,446,314.8	728,279.5	2,581.00			Average	

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		point2123	2123	2,446,714.8	728,275.4	2,581.00				
EB 2 Spurwing Greens to Long Lake	12.0	point2124	2124	2,441,915.0	728,331.4	2,560.00				Average
		point2125	2125	2,442,315.0	728,326.0	2,562.00				Average
		point2126	2126	2,442,715.0	728,320.1	2,565.00				Average
		point2127	2127	2,443,115.0	728,315.6	2,570.00				Average
		point2128	2128	2,444,307.8	728,300.9	2,571.00				
EB 2 Blk Cat to Spurwing G	12.0	point2129	2129	2,439,115.2	728,365.7	2,547.00				Average
		point2130	2130	2,439,515.2	728,361.0	2,550.00				Average
		point2131	2131	2,439,915.2	728,355.9	2,554.00				Average
		point2132	2132	2,440,315.0	728,350.8	2,558.00				Average
		point2133	2133	2,440,715.0	728,346.0	2,561.00				Average
		point2134	2134	2,441,115.0	728,341.2	2,565.00				Average
		point2135	2135	2,441,515.0	728,335.5	2,568.00				
EB 2 Serentiy to Blk Cat	12.0	point2136	2136	2,434,515.5	728,403.6	2,539.00				Average
		point2137	2137	2,435,915.5	728,399.7	2,540.00				Average
		point2138	2138	2,436,315.5	728,395.8	2,542.00				Average
		point2139	2139	2,436,715.5	728,391.7	2,543.00				Average
		point2140	2140	2,437,115.2	728,386.8	2,544.00				Average
		point2141	2141	2,437,515.2	728,381.9	2,545.00				Average
		point2142	2142	2,437,915.2	728,377.9	2,546.00				Average
		point2143	2143	2,438,315.2	728,373.9	2,548.00				Average
		point2144	2144	2,439,105.2	728,365.7	2,548.00				
EB 1 Star to Blck Cat	12.0	point2203	2203	2,434,515.0	728,390.3	2,539.00				Average
		point2204	2204	2,435,915.0	728,386.2	2,540.00				Average
		point2205	2205	2,436,315.0	728,382.0	2,542.00				Average
		point2206	2206	2,436,715.0	728,377.9	2,543.00				Average
		point2212	2212	2,437,115.0	728,373.4	2,544.00				Average
		point2207	2207	2,437,515.0	728,368.9	2,545.00				Average
		point2208	2208	2,437,914.8	728,365.0	2,546.00				Average
		point2209	2209	2,438,314.8	728,361.2	2,548.00				Average
		point2210	2210	2,438,714.8	728,357.4	2,548.00				Average
		point2211	2211	2,439,110.8	728,353.7	2,548.00				
EB 1 Long Lake to Spurwing Greens	12.0	point2218	2218	2,439,114.8	728,353.7	2,547.00				Average
		point2213	2213	2,439,514.8	728,349.2	2,550.00				Average
		point2214	2214	2,439,914.8	728,344.1	2,554.00				Average
		point2215	2215	2,440,314.8	728,339.1	2,558.00				Average
		point2216	2216	2,440,714.8	728,334.2	2,561.00				Average
		point2219	2219	2,441,114.5	728,329.4	2,565.00				Average

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		point2217	2217	2,441,910.5	728,318.9	2,568.00				
EB 1 Spurwing Green to Long Lake	12.0	point2227	2227	2,441,914.5	728,318.9	2,560.00				Average
		point2220	2220	2,442,314.5	728,313.7	2,562.00				Average
		point2221	2221	2,442,714.5	728,308.6	2,565.00				Average
		point2222	2222	2,443,114.5	728,303.5	2,570.00				Average
		point2223	2223	2,443,514.5	728,298.3	2,571.00				Average
		point2224	2224	2,443,914.5	728,293.2	2,572.00				Average
		point2225	2225	2,444,314.5	728,288.2	2,572.00				Average
		point2226	2226	2,444,714.2	728,283.2	2,575.00				
EB 1 Long Lake to Linder	12.0	point2248	2248	2,444,710.2	728,283.2	2,581.00				Average
		point2241	2241	2,445,114.2	728,279.4	2,581.00				Average
		point2242	2242	2,445,914.2	728,271.9	2,581.00				Average
		point2243	2243	2,446,314.2	728,268.2	2,581.00				Average
		point2244	2244	2,446,714.2	728,264.3	2,581.00				Average
		point2245	2245	2,447,114.2	728,260.4	2,581.00				Average
		point2246	2246	2,447,514.2	728,256.1	2,581.00				Average
		point2247	2247	2,448,910.0	728,229.9	2,581.00				
EB 3 Long Lake To Linder	12.0	point2249	2249	2,444,717.0	728,306.9	2,581.00				Average
		point2250	2250	2,445,117.0	728,303.0	2,581.00				Average
		point2251	2251	2,445,517.0	728,299.8	2,581.00				Average
		point2252	2252	2,445,917.0	728,295.6	2,581.00				Average
		point2253	2253	2,446,317.0	728,291.1	2,581.00				Average
		point2254	2254	2,446,717.0	728,286.6	2,581.00				Average
		point2255	2255	2,447,117.0	728,282.9	2,581.00				Average
		point2256	2256	2,449,914.5	728,246.1	2,581.00				
EB 3 Long Lk to 10 Mile	12.0	point2257	2257	2,441,917.2	728,342.9	2,560.00				Average
		point2258	2258	2,442,317.2	728,338.1	2,562.00				Average
		point2259	2259	2,442,717.2	728,333.3	2,565.00				Average
		point2260	2260	2,443,117.2	728,328.4	2,570.00				Average
		point2261	2261	2,443,517.2	728,323.2	2,571.00				Average
		point2262	2262	2,443,917.2	728,318.0	2,572.00				Average
		point2263	2263	2,444,710.0	728,306.9	2,572.00				
EB 3 Ten Mile to Tree Farm	12.0	point2264	2264	2,439,117.5	728,377.2	2,547.00				Average
		point2265	2265	2,439,517.5	728,373.5	2,550.00				Average
		point2266	2266	2,439,917.5	728,368.9	2,554.00				Average
		point2267	2267	2,440,317.5	728,363.9	2,558.00				Average
		point2268	2268	2,440,717.5	728,358.5	2,561.00				Average
		point2269	2269	2,441,117.5	728,353.5	2,565.00				Average

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		point2270	2270	2,441,907.2	728,342.9	2,568.00				
EB 3 Blk Cat to Tree Farm	12.0	point2272	2272	2,434,517.8	728,414.2	2,539.00			Average	
		point2273	2273	2,435,917.8	728,410.1	2,540.00			Average	
		point2274	2274	2,436,317.8	728,406.7	2,542.00			Average	
		point2275	2275	2,436,717.8	728,403.2	2,543.00			Average	
		point2276	2276	2,437,117.8	728,398.4	2,544.00			Average	
		point2277	2277	2,437,517.5	728,392.7	2,545.00			Average	
		point2278	2278	2,437,917.5	728,389.6	2,546.00			Average	
		point2279	2279	2,438,317.5	728,386.2	2,548.00			Average	
		point2280	2280	2,439,107.5	728,377.2	2,548.00				
WB 1 Linder to Long Lake	12.0	point2281	2281	2,448,700.8	728,323.4	2,581.00			Average	
		point2282	2282	2,448,303.0	728,341.7	2,581.00			Average	
		point2283	2283	2,447,903.2	728,352.5	2,581.00			Average	
		point2284	2284	2,447,503.2	728,355.5	2,581.00			Average	
		point2285	2285	2,447,103.5	728,360.8	2,581.00				
WB 2 Linder to Long Lake	12.0	point2368	2368	2,448,707.8	728,310.7	2,581.00			Average	
		point2369	2369	2,448,308.2	728,329.6	2,581.00			Average	
		point2370	2370	2,447,908.5	728,340.5	2,581.00			Average	
		point2371	2371	2,447,508.5	728,344.3	2,581.00			Average	
		point2372	2372	2,447,108.5	728,348.2	2,581.00				
WB 1 Linder to Serenity Lane	12.0	point2467	2467	2,449,056.5	728,291.1	2,581.00			Average	
		point2468	2468	2,448,698.5	728,299.2	2,581.00			Average	
		point2469	2469	2,448,299.0	728,319.0	2,581.00			Average	
		point2470	2470	2,447,899.2	728,328.2	2,581.00			Average	
		point2471	2471	2,447,499.2	728,332.5	2,581.00			Average	
		point2472	2472	2,447,099.2	728,336.1	2,581.00				
Fox Run-S SB	12.0	point2513	2513	2,452,515.5	728,187.2	2,583.00			Average	
		point2514	2514	2,452,515.2	728,155.5	2,583.00			Average	
		point1841	1841	2,452,515.0	728,123.7	2,583.00				
Fox Run NB-N	12.0	point2516	2516	2,452,542.5	728,335.6	2,583.00			Average	
		point2517	2517	2,452,543.2	728,368.7	2,583.00			Average	
		point1838	1838	2,452,544.0	728,401.7	2,583.00				
WB CF 6-2	12.0	point2528	2528	2,449,897.2	728,214.9	2,574.00			Average	
		point1874	1874	2,449,878.8	728,204.7	2,574.00			Average	
		point1875	1875	2,449,730.0	728,196.3	2,574.00			Average	
		point1876	1876	2,449,580.0	728,197.1	2,574.00				
WB CF 5-2	12.0	point2532	2532	2,449,926.0	728,213.9	2,574.00			Average	
		point1867	1867	2,449,893.2	728,196.5	2,574.00			Average	

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		point1868	1868	2,449,745.0	728,183.0	2,574.00			Average	
		point1869	1869	2,449,595.0	728,183.8	2,574.00				
Linder NB N	12.0	point1957	1957	2,449,479.2	728,377.4	2,574.00			Average	
		point1958	1958	2,449,502.8	728,522.7	2,574.00			Average	
		point1959	1959	2,449,508.0	728,672.6	2,574.00			Average	
		point1960	1960	2,449,514.0	728,822.5	2,574.00			Average	
		point1961	1961	2,449,521.5	728,972.3	2,574.00			Average	
		point1962	1962	2,449,531.0	729,122.0	2,574.00			Average	
		point1963	1963	2,449,540.2	729,271.7	2,574.00			Average	
		point1964	1964	2,449,542.5	729,421.6	2,574.00			Average	
		point1965	1965	2,449,544.0	729,571.6	2,574.00			Average	
		point1966	1966	2,449,543.8	729,721.6	2,574.00			Average	
		point1967	1967	2,449,541.0	729,871.6	2,574.00				
Linder NB	12.0	point1977	1977	2,449,490.0	728,493.9	2,574.00			Average	
		point1978	1978	2,449,495.0	728,643.8	2,574.00			Average	
		point1979	1979	2,449,500.5	728,793.7	2,574.00			Average	
		point1980	1980	2,449,506.8	728,943.5	2,574.00			Average	
		point1981	1981	2,449,518.5	729,093.1	2,574.00			Average	
		point1982	1982	2,449,525.5	729,242.9	2,574.00			Average	
		point1983	1983	2,449,530.0	729,392.8	2,574.00			Average	
		point1984	1984	2,449,530.5	729,542.8	2,574.00			Average	
		point1985	1985	2,449,530.8	729,692.8	2,574.00			Average	
		point1986	1986	2,449,529.0	729,842.8	2,574.00				
SB CF3-2	12.0	point1938	1938	2,449,517.5	728,688.0	2,574.00			Average	
		point1939	1939	2,449,542.0	728,542.7	2,574.00			Average	
		point1940	1940	2,449,538.0	728,332.7	2,574.00				
SB CF 4-2	12.0	point2542	2542	2,449,518.8	728,609.9	2,574.00			Average	
		point1947	1947	2,449,531.5	728,562.7	2,574.00			Average	
		point1948	1948	2,449,526.8	728,330.8	2,574.00				
SB 10-2	12.0	point1925	1925	2,449,458.2	728,198.6	2,574.00			Average	
		point1926	1926	2,449,456.2	728,089.7	2,574.00			Average	
		point1927	1927	2,449,455.2	727,939.7	2,574.00			Average	
		point1928	1928	2,449,459.0	727,789.7	2,574.00			Average	
		point1929	1929	2,449,460.0	727,639.7	2,574.00			Average	
		point1930	1930	2,449,459.2	727,489.7	2,574.00			Average	
		point1931	1931	2,449,457.2	727,339.8	2,574.00			Average	
		point1932	1932	2,449,455.2	727,189.8	2,574.00			Average	
		point1933	1933	2,449,452.0	727,039.8	2,574.00				

INPUT: ROADWAYS **20_26 Corridor Study**

NB CF	12.0	point2547	2547	2,449,450.8	727,825.8	2,574.00				Average
		point2548	2548	2,449,434.5	727,872.2	2,574.00				Average
		point2013	2013	2,449,418.2	727,918.5	2,574.00				Average
		point2014	2014	2,449,419.0	728,068.5	2,574.00				Average
		point2015	2015	2,449,414.5	728,217.7	2,574.00				
EB CF 4-2	12.0	point1973	1973	2,449,001.2	728,320.1	2,574.00				Average
		point1974	1974	2,449,143.8	728,353.2	2,574.00				Average
		point1975	1975	2,449,293.8	728,351.3	2,574.00				Average
		point1976	1976	2,449,418.5	728,380.7	2,574.00				
Roadway191-2	12.0	point1954	1954	2,449,049.0	728,328.5	2,574.00				Average
		point1955	1955	2,449,191.2	728,340.9	2,574.00				Average
		point1956	1956	2,449,341.2	728,338.7	2,574.00				Average
		point2534	2534	2,449,387.2	728,351.6	2,574.00				Average
		point2535	2535	2,449,433.2	728,364.5	2,574.00				
SB 11-2	12.0	point2039	2039	2,446,906.5	728,258.7	2,556.00				Average
		point2040	2040	2,446,906.5	728,177.5	2,568.00				
Long Lake -2	12.0	point2554	2554	2,446,952.5	728,388.6	2,568.00				Average
		point2037	2037	2,446,953.5	728,449.7	2,568.00				
WB 2 Linder toTree Farm	12.0	point2556	2556	2,447,108.5	728,348.2	2,581.00				Average
		point2373	2373	2,446,708.5	728,352.0	2,581.00				Average
		point2374	2374	2,446,308.5	728,355.8	2,581.00				Average
		point2375	2375	2,445,908.5	728,359.6	2,580.00				Average
		point2376	2376	2,445,508.5	728,363.6	2,575.00				Average
		point2377	2377	2,445,108.5	728,367.7	2,575.00				Average
		point2378	2378	2,444,708.5	728,372.1	2,574.00				Average
		point2379	2379	2,444,308.5	728,376.6	2,572.00				Average
		point2380	2380	2,443,908.8	728,382.1	2,571.00				Average
		point2381	2381	2,443,508.8	728,386.6	2,570.00				Average
		point2382	2382	2,443,108.8	728,391.3	2,568.00				Average
		point2383	2383	2,442,708.8	728,396.5	2,565.00				Average
		point2384	2384	2,442,308.8	728,401.8	2,566.00				Average
		point2385	2385	2,441,908.8	728,407.0	2,560.00				
WB 1 Long Lake to Tree Farm	12.0	point2557	2557	2,447,103.5	728,360.8	2,581.00				Average
		point2286	2286	2,446,703.5	728,364.1	2,581.00				Average
		point2287	2287	2,446,303.5	728,367.1	2,581.00				Average
		point2288	2288	2,445,903.5	728,370.9	2,580.00				Average
		point2289	2289	2,445,503.5	728,374.8	2,575.00				Average
		point2290	2290	2,445,103.5	728,379.4	2,575.00				Average

		point2291	2291	2,444,703.5	728,383.9	2,574.00				Average
		point2292	2292	2,444,303.5	728,388.7	2,572.00				Average
		point2293	2293	2,443,903.5	728,393.6	2,571.00				Average
		point2294	2294	2,443,503.5	728,398.5	2,570.00				Average
		point2295	2295	2,443,103.5	728,403.3	2,568.00				Average
		point2296	2296	2,442,703.5	728,408.5	2,565.00				Average
		point2297	2297	2,442,303.8	728,414.1	2,566.00				Average
		point2298	2298	2,441,903.8	728,419.5	2,560.00				
WB 1 Linder to tree farm	12.0	point2558	2558	2,447,109.2	728,336.1	2,581.00				Average
		point2474	2474	2,446,699.2	728,340.3	2,581.00				Average
		point2475	2475	2,446,299.2	728,344.4	2,581.00				Average
		point2476	2476	2,445,899.5	728,347.8	2,580.00				Average
		point2477	2477	2,445,499.5	728,351.3	2,575.00				Average
		point2478	2478	2,445,099.5	728,355.5	2,575.00				Average
		point2479	2479	2,444,699.5	728,359.8	2,574.00				Average
		point2480	2480	2,444,299.5	728,365.2	2,572.00				Average
		point2481	2481	2,443,899.5	728,370.8	2,571.00				Average
		point2482	2482	2,443,499.5	728,375.6	2,570.00				Average
		point2483	2483	2,443,099.5	728,380.2	2,568.00				Average
		point2484	2484	2,442,699.5	728,385.0	2,565.00				Average
		point2485	2485	2,442,299.5	728,389.8	2,560.00				Average
		point2486	2486	2,441,905.5	728,394.9	2,560.00				
WB 1Tree Farm to Blk Cat	12.0	point2583	2583	2,441,803.8	728,420.7	2,567.25				Average
		point2584	2584	2,441,703.8	728,421.9	2,566.50				Average
		point2585	2585	2,441,603.8	728,423.1	2,565.75				Average
		point2299	2299	2,441,503.8	728,424.3	2,565.00				Average
		point2300	2300	2,441,103.8	728,429.2	2,563.00				Average
		point2301	2301	2,440,703.8	728,434.2	2,560.00				Average
		point2302	2302	2,440,303.8	728,439.2	2,558.00				Average
		point2303	2303	2,439,904.0	728,444.5	2,556.00				Average
		point2304	2304	2,439,504.0	728,449.9	2,554.00				Average
		point2586	2586	2,439,404.0	728,450.9	2,553.50				Average
		point2587	2587	2,439,304.0	728,451.9	2,553.00				Average
		point2588	2588	2,439,204.0	728,453.0	2,552.50				
WB 2 Tree Farm to Blk Cat	12.0	point2580	2580	2,441,808.8	728,408.3	2,567.25				Average
		point2581	2581	2,441,708.8	728,409.6	2,566.50				Average
		point2582	2582	2,441,608.8	728,410.9	2,565.75				Average
		point2386	2386	2,441,508.8	728,412.2	2,565.00				Average

		point2387	2387	2,441,109.0	728,417.2	2,563.00				Average
		point2388	2388	2,440,709.0	728,422.1	2,560.00				Average
		point2389	2389	2,440,309.0	728,427.0	2,558.00				Average
		point2390	2390	2,439,909.0	728,431.9	2,556.00				Average
		point2391	2391	2,439,509.0	728,436.9	2,554.00				Average
		point2577	2577	2,439,409.0	728,438.2	2,553.50				Average
		point2578	2578	2,439,309.0	728,439.5	2,553.00				Average
		point2579	2579	2,439,209.0	728,440.8	2,552.50				
WB 1 Tree Farm to Blk Cat	12.0	point2561	2561	2,441,899.5	728,394.9	2,568.00				Average
		point2487	2487	2,441,499.8	728,400.2	2,565.00				Average
		point2488	2488	2,441,099.8	728,405.4	2,563.00				Average
		point2489	2489	2,440,699.8	728,410.5	2,560.00				Average
		point2490	2490	2,440,299.8	728,415.5	2,558.00				Average
		point2491	2491	2,439,899.8	728,420.5	2,556.00				Average
		point2492	2492	2,439,499.8	728,425.4	2,554.00				Average
		point2574	2574	2,439,399.8	728,426.4	2,553.00				Average
		point2575	2575	2,439,300.0	728,427 4	2,552.00				Average
		point2576	2576	2,439,200.0	728,428.5	2,551.00				
BlackCat SB-2	12.0	point2565	2565	2,438,931.0	728,345.6	2,542.00				Average
		point2566	2566	2,438,930.0	728,297.9	2,542.00				Average
		point2101	2101	2,438,929.0	728,250.3	2,542.00				
NB 1Black Cat	12.0	point2568	2568	2,438,957.0	728,481.6	2,542.00				Average
		point2094	2094	2,438,957.2	728,547.3	2,542.00				
WB 1 Black Cat to Star	12.0	point2571	2571	2,439,104.0	728,454.0	2,545.00				Average
		point2306	2306	2,438,704.0	728,457.7	2,545.00				Average
		point2307	2307	2,438,304.0	728,461.5	2,544.00				Average
		point2308	2308	2,437,904.0	728,465.5	2,544.00				Average
		point2309	2309	2,437,504.0	728,469.5	2,544.00				Average
		point2310	2310	2,437,104.0	728,473.5	2,543.00				Average
		point2311	2311	2,436,704.0	728,477.6	2,543.00				Average
		point2312	2312	2,436,304.0	728,481.3	2,541.00				Average
		point2313	2313	2,434,500.0	728,485.1	2,540.00				
WB 2 Blck Cat To Star	12.0	point2572	2572	2,439,109.0	728,442.1	2,545.00				Average
		point2393	2393	2,438,709.0	728,445.4	2,545.00				Average
		point2394	2394	2,438,309.0	728,449.4	2,544.00				Average
		point2395	2395	2,437,909.0	728,453.5	2,544.00				Average
		point2396	2396	2,437,509.0	728,457.5	2,544.00				Average
		point2397	2397	2,437,109.0	728,461.6	2,543.00				Average

INPUT: ROADWAYS **20_26 Corridor Study**

		point2398	2398	2,436,709.2	728,465.6	2,543.00			Average	
		point2399	2399	2,434,500.0	728,469.7	2,541.00				
WB 1 Blk Cat to Star	12.0	point2573	2573	2,439,100.0	728,429.5	2,545.00			Average	
		point2494	2494	2,438,700.0	728,433.3	2,545.00			Average	
		point2495	2495	2,438,300.0	728,437.1	2,544.00			Average	
		point2496	2496	2,437,900.0	728,441.0	2,544.00			Average	
		point2497	2497	2,437,500.0	728,445.2	2,544.00			Average	
		point2498	2498	2,437,100.0	728,449.5	2,543.00			Average	
		point2499	2499	2,436,700.0	728,453.5	2,543.00			Average	
		point2500	2500	2,436,300.0	728,457.3	2,541.00			Average	
		point2501	2501	2,435,900.0	728,461.2	2,540.00			Average	
		point2502	2502	2,434,500.0	728,465.3	2,540.00				

C103

AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Build 1with Berms

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	#Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Fox Run	W	0.00	99.99	0.00				0.00	point92	92	2,452,982.2	728,325.1	2,588.00	10.00	0.00	0	0		
									point93	93	2,452,782.2	728,326.4	2,588.00	10.00	0.00	0	0		
									point94	94	2,452,582.2	728,327.7	2,588.00	10.00	0.00	0	0		
									point95	95	2,452,382.2	728,329.0	2,588.00	10.00					
Spurwing Golf E	W	0.00	99.99	0.00				0.00	point168	168	2,446,979.0	728,557.0	2,581.00	8.00	0.00	0	0		
									point169	169	2,446,982.2	728,457.0	2,581.00	8.00	0.00	0	0		
									point170	170	2,447,064.8	728,439.1	2,581.00	8.00	0.00	0	0		
									point171	171	2,447,164.8	728,439.3	2,581.00	8.00	0.00	0	0		
									point172	172	2,447,264.8	728,439.5	2,581.00	8.00	0.00	0	0		
									point173	173	2,447,364.8	728,439.8	2,581.00	8.00	0.00	0	0		
									point175	175	2,447,464.8	728,440.0	2,581.00	8.00	0.00	0	0		
									point176	176	2,447,564.8	728,440.2	2,581.00	8.00	0.00	0	0		
									point177	177	2,447,664.8	728,440.5	2,581.00	8.00	0.00	0	0		
									point178	178	2,447,764.8	728,440.7	2,581.00	8.00	0.00	0	0		
									point179	179	2,447,864.8	728,440.9	2,581.00	8.00	0.00	0	0		
									point180	180	2,447,964.8	728,441.2	2,581.00	8.00	0.00	0	0		
									point181	181	2,448,064.8	728,441.4	2,581.00	8.00	0.00	0	0		
									point182	182	2,448,164.8	728,441.6	2,581.00	8.00	0.00	0	0		
									point183	183	2,448,264.8	728,441.9	2,581.00	8.00	0.00	0	0		
									point184	184	2,448,364.8	728,442.1	2,581.00	8.00	0.00	0	0		
									point185	185	2,448,464.8	728,442.3	2,581.00	8.00	0.00	0	0		
									point186	186	2,448,489.8	728,442.4	2,581.00	8.00					
Spurwing W	W	0.00	99.99	0.00				0.00	point187	187	2,444,253.0	728,437.7	2,574.00	6.00	0.00	0	0		
									point188	188	2,444,353.0	728,437.0	2,574.00	6.00	0.00	0	0		
									point189	189	2,444,453.0	728,436.2	2,574.00	6.00	0.00	0	0		
									point190	190	2,444,553.0	728,435.4	2,574.00	6.00	0.00	0	0		
									point191	191	2,444,653.0	728,434.7	2,574.00	6.00	0.00	0	0		
									point192	192	2,444,753.0	728,433.9	2,574.00	6.00	0.00	0	0		
									point193	193	2,444,853.0	728,433.1	2,575.00	6.00	0.00	0	0		
									point194	194	2,444,953.0	728,432.4	2,575.00	6.00	0.00	0	0		
									point195	195	2,445,053.0	728,431.6	2,576.00	6.00	0.00	0	0		
									point196	196	2,445,153.0	728,430.8	2,576.00	6.00	0.00	0	0		
									point197	197	2,445,253.0	728,430.1	2,576.00	6.00	0.00	0	0		
									point198	198	2,445,353.0	728,429.3	2,578.00	6.00	0.00	0	0		
									point199	199	2,445,453.0	728,428.5	2,578.00	6.00	0.00	0	0		

								point200	200	2,445,553.0	728,427.7	2,578.00	6.00	0.00	0	0
								point201	201	2,445,653.0	728,427.0	2,580.00	6.00	0.00	0	0
								point202	202	2,445,753.0	728,426.2	2,580.00	6.00	0.00	0	0
								point203	203	2,445,853.0	728,425.4	2,581.00	6.00	0.00	0	0
								point204	204	2,445,953.0	728,424.7	2,580.00	6.00	0.00	0	0
								point205	205	2,446,053.0	728,423.9	2,581.00	6.00	0.00	0	0
								point206	206	2,446,153.0	728,423.1	2,581.00	6.00	0.00	0	0
								point207	207	2,446,253.0	728,422.4	2,581.00	6.00	0.00	0	0
								point208	208	2,446,353.0	728,421.6	2,581.00	6.00	0.00	0	0
								point209	209	2,446,453.0	728,420.8	2,581.00	6.00	0.00	0	0
								point210	210	2,446,553.0	728,420.1	2,581.00	6.00	0.00	0	0
								point211	211	2,446,653.0	728,419.3	2,581.00	6.00	0.00	0	0
								point212	212	2,446,753.0	728,418.5	2,581.00	6.00	0.00	0	0
								point213	213	2,446,846.0	728,426.6	2,581.00	6.00	0.00	0	0
								point214	214	2,446,866.5	728,524.5	2,581.00	6.00	0.00	0	0
								point215	215	2,446,874.8	728,563.3	2,581.00	6.00			
Silver leaf	W	0.00	99.99	0.00			0.00	point216	216	2,445,938.0	728,261.2	2,581.00	0.00	0.00	0	0
								point217	217	2,446,038.0	728,258.6	2,581.00	0.00	0.00	0	0
								point218	218	2,446,138.0	728,256.0	2,581.00	0.00	0.00	0	0
								point219	219	2,446,237.8	728,253.4	2,581.00	0.00	0.00	0	0
								point220	220	2,446,337.8	728,250.8	2,581.00	0.00	0.00	0	0
								point221	221	2,446,437.8	728,248.2	2,581.00	0.00	0.00	0	0
								point222	222	2,446,537.8	728,245.6	2,581.00	6.00	0.00	0	0
								point223	223	2,446,637.8	728,243.0	2,581.00	6.00	0.00	0	0
								point224	224	2,446,737.8	728,240.4	2,581.00	6.00	0.00	0	0
								point225	225	2,446,832.5	728,238.0	2,581.00	6.00			
Spurwing Greens E	W	0.00	99.99	0.00			0.00	point226	226	2,441,660.2	728,626.6	2,568.00	15.00	0.00	0	0
								point227	227	2,441,668.2	728,526.9	2,568.00	15.00	0.00	0	0
								point228	228	2,441,754.5	728,511.7	2,568.00	15.00	0.00	0	0
								point229	229	2,441,854.5	728,511.2	2,569.00	15.00	0.00	0	0
								point230	230	2,441,954.5	728,510.6	2,569.00	15.00	0.00	0	0
								point231	231	2,442,054.5	728,510.1	2,569.00	15.00	0.00	0	0
								point232	232	2,442,154.5	728,509.6	2,570.00	15.00	0.00	0	0
								point233	233	2,442,254.5	728,509.0	2,570.00	15.00	0.00	0	0
								point234	234	2,442,354.5	728,508.5	2,570.00	15.00	0.00	0	0
								point235	235	2,442,454.5	728,507.9	2,570.00	15.00	0.00	0	0
								point236	236	2,442,554.5	728,507.4	2,571.00	15.00	0.00	0	0
								point237	237	2,442,654.5	728,506.9	2,571.00	15.00	0.00	0	0
								point238	238	2,442,754.5	728,506.3	2,571.00	15.00	0.00	0	0
								point239	239	2,442,854.5	728,505.8	2,571.00	15.00	0.00	0	0
								point240	240	2,442,954.5	728,505.2	2,571.00	15.00	0.00	0	0
								point241	241	2,443,054.5	728,504.7	2,571.00	15.00	0.00	0	0
								point242	242	2,443,154.5	728,504.1	2,571.00	15.00	0.00	0	0
								point243	243	2,443,254.5	728,503.6	2,571.00	15.00	0.00	0	0
								point244	244	2,443,354.5	728,503.1	2,571.00	15.00	0.00	0	0
								point245	245	2,443,454.5	728,502.5	2,571.00	15.00	0.00	0	0
								point246	246	2,443,554.5	728,502.0	2,571.00	15.00	0.00	0	0
								point247	247	2,443,647.5	728,501.5	2,572.00	15.00			

INPUT: BARRIERS

20_26 Corridor Study

Spurwing Greens E-2	W	0.00	99.99	0.00				0.00	point248	248	2,441,323.5	728,502.6	2,568.00	15.00	0.00	0	0
									point249	249	2,441,423.2	728,498.5	2,568.00	15.00	0.00	0	0
									point250	250	2,441,490.2	728,533.6	2,568.00	15.00	0.00	0	0
									point251	251	2,441,501.2	728,617.5	2,568.00	15.00			
Reynard W	W	0.00	99.99	0.00				0.00	point253	253	2,450,820.0	728,643.5	2,584.00	12.00	0.00	0	0
									point258	258	2,450,920.0	728,640.8	2,584.00	12.00	0.00	0	0
									point257	257	2,451,020.0	728,638.0	2,584.00	12.00	0.00	0	0
									point254	254	2,451,120.0	728,635.2	2,584.00	12.00	0.00	0	0
									point255	255	2,451,166.5	728,694.2	2,584.00	12.00	0.00	0	0
									point256	256	2,451,170.8	728,729.9	2,584.00	12.00			
Barrier25	W	0.00	99.99	0.00				0.00	point259	259	2,451,366.5	728,414.4	2,581.00	12.00	0.00	0	0
									point260	260	2,451,466.5	728,415.0	2,581.00	12.00	0.00	0	0
									point261	261	2,451,566.5	728,415.6	2,581.00	12.00	0.00	0	0
									point262	262	2,451,666.5	728,416.2	2,581.00	12.00	0.00	0	0
									point263	263	2,451,766.5	728,416.8	2,581.00	12.00	0.00	0	0
									point264	264	2,451,866.5	728,417.4	2,581.00	12.00	0.00	0	0
									point265	265	2,451,966.5	728,418.0	2,581.00	12.00	0.00	0	0
									point266	266	2,452,066.5	728,418.6	2,581.00	12.00	0.00	0	0
									point267	267	2,452,131.5	728,419.0	2,581.00	12.00			

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AXIOM POINTS
Kari Frederick

10 July 2015
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Build 1with Berms

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
107	25	10	2,449,242.0	728,549.9	2,574.00	4.92	50.30	66	10.0	7.0	Y
105	29	1	2,448,118.0	728,097.8	2,581.00	4.92	61.50	66	10.0	7.0	Y
104	30	1	2,447,306.5	728,118.2	2,581.00	4.92	57.90	66	10.0	7.0	Y
106	31	1	2,448,343.5	728,479.2	2,581.00	4.92	61.70	66	10.0	7.0	Y
103	32	2	2,446,657.8	728,115.2	2,576.00	4.92	54.10	66	10.0	7.0	Y
100	33	1	2,446,030.0	728,159.6	2,581.00	4.92	65.10	66	10.0	7.0	Y
101	34	1	2,446,117.0	728,467.6	2,581.00	4.92	65.50	66	10.0	7.0	Y
102	35	4	2,446,362.8	728,534.0	2,581.00	4.92	51.90	66	10.0	7.0	Y
99	37	1	2,445,900.8	728,175.1	2,581.00	4.92	60.20	66	10.0	7.0	Y
98	44	1	2,444,126.5	728,503.1	2,572.00	4.92	56.40	66	10.0	7.0	Y
97	67	1	2,443,581.5	728,528.2	2,571.00	4.92	0.00	66	10.0	7.0	Y
96	68	1	2,442,868.0	728,546.7	2,571.00	4.92	0.00	66	10.0	7.0	Y
95	69	1	2,441,746.0	728,566.3	2,568.00	4.92	0.00	66	10.0	7.0	Y
94	70	1	2,441,233.2	728,484.8	2,565.00	4.92	0.00	66	10.0	7.0	Y
93	71	1	2,440,547.5	728,288.3	2,558.00	4.92	0.00	66	10.0	7.0	Y
92	72	1	2,439,282.0	728,525.7	2,553.00	4.92	0.00	66	10.0	7.0	Y
91	74	1	2,439,079.5	727,960.9	2,554.00	4.92	0.00	66	10.0	7.0	Y
90	75	1	2,438,823.5	728,224.8	2,554.00	4.92	0.00	66	10.0	7.0	Y
89	76	1	2,437,758.5	728,048.3	2,554.00	4.92	0.00	66	10.0	7.0	Y
88	77	1	2,437,526.0	728,508.7	2,554.00	4.92	0.00	66	10.0	7.0	Y
87	78	1	2,437,444.8	728,222.9	2,554.00	4.92	0.00	66	10.0	7.0	Y
86	79	1	2,436,925.0	728,277.2	2,554.00	4.92	0.00	66	10.0	7.0	Y

INPUT: RECEIVERS **20_26 Corridor Study**

85	80	1	2,436,142.2	728,275.9	2,554.00	4.92	0.00	66	10.0	7.0	Y
84	87	1	2,435,382.2	728,190.6	2,539.00	4.92	0.00	66	10.0	7.0	Y
108	89	1	2,449,273.5	728,129.1	2,574.00	4.92	0.00	66	10.0	7.0	Y
109	90	1	2,450,331.0	728,455.3	2,581.00	4.92	0.00	66	10.0	7.0	Y
111	91	1	2,451,436.2	728,453.1	2,584.00	4.92	0.00	66	10.0	7.0	Y
110	92	1	2,450,899.8	728,413.6	2,584.00	4.92	0.00	66	10.0	7.0	Y

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AXIOM POINTS 10 July 2015
Kari Frederick TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Build 1with Berms

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
WB Turn 7	point1424	1424	59	25	0	0	0	0	0	0	0	0
	point1425	1425	59	25	0	0	0	0	0	0	0	0
	point1426	1426	59	25	0	0	0	0	0	0	0	0
	point1427	1427	59	25	0	0	0	0	0	0	0	0
	point1428	1428										
WB Turn 8	point1429	1429	43	25	0	0	0	0	0	0	0	0
	point1430	1430	43	25	0	0	0	0	0	0	0	0
	point1432	1432										
WB Locust Grove to Merdidan-2	point1772	1772	1051	55	85	55	48	55	12	55	12	55
	point1771	1771	1051	55	85	55	48	55	12	55	12	55
	point1769	1769	1051	55	85	55	48	55	12	55	12	55
	point1172	1172	1051	55	85	55	48	55	12	55	12	55
	point1173	1173	1051	55	85	55	48	55	12	55	12	55
	point1174	1174	1051	55	85	55	48	55	12	55	12	55
	point1175	1175	1051	55	85	55	48	55	12	55	12	55
	point1176	1176	1051	55	85	55	48	55	12	55	12	55
	point1177	1177	1051	55	85	55	48	55	12	55	12	55
	point1178	1178	1051	55	85	55	48	55	12	55	12	55
	point1179	1179	1051	55	85	55	48	55	12	55	12	55
	point1180	1180	1051	55	85	55	48	55	12	55	12	55
	point1181	1181	1051	55	85	55	48	55	12	55	12	55
	point1182	1182	1051	55	85	55	48	55	12	55	12	55

	point1183	1183	1051	55	85	55	48	55	12	55	12	55
	point1184	1184	1051	55	85	55	48	55	12	55	12	55
	point1185	1185	1051	55	85	55	48	55	12	55	12	55
	point1186	1186										
WB2 Meridian to Linder	point1775	1775	1051	55	85	55	48	55	12	55	12	55
	point1089	1089	1051	55	85	55	48	55	12	55	12	55
	point1090	1090	1051	55	85	55	48	55	12	55	12	55
	point1091	1091	1051	55	85	55	48	55	12	55	12	55
	point1092	1092	1051	55	85	55	48	55	12	55	12	55
	point1093	1093	1051	55	85	55	48	55	12	55	12	55
	point1094	1094	1051	55	85	55	48	55	12	55	12	55
	point1095	1095	1051	55	85	55	48	55	12	55	12	55
	point1096	1096	1051	55	85	55	48	55	12	55	12	55
	point1097	1097	1051	55	85	55	48	55	12	55	12	55
	point1098	1098	1051	55	85	55	48	55	12	55	12	55
	point1099	1099	1051	55	85	55	48	55	12	55	12	55
	point1100	1100	1051	55	85	55	48	55	12	55	12	55
	point1101	1101	1051	55	85	55	48	55	12	55	12	55
	point1102	1102	1051	55	85	55	48	55	12	55	12	55
	point1103	1103	1051	55	85	55	48	55	12	55	12	55
	point1819	1819										
WB Meridian to Linder	point1781	1781	1051	55	85	55	48	55	12	55	12	55
	point964	964	1051	55	85	55	48	55	12	55	12	55
	point965	965	1051	55	85	55	48	55	12	55	12	55
	point966	966	1051	55	85	55	48	55	12	55	12	55
	point967	967	1051	55	85	55	48	55	12	55	12	55
	point968	968	1051	55	85	55	48	55	12	55	12	55
	point969	969	1051	55	85	55	48	55	12	55	12	55
	point970	970	1051	55	85	55	48	55	12	55	12	55
	point971	971	1051	55	85	55	48	55	12	55	12	55
	point972	972	1051	55	85	55	48	55	12	55	12	55
	point973	973	1051	55	85	55	48	55	12	55	12	55
	point974	974	1051	55	85	55	48	55	12	55	12	55
	point975	975	1051	55	85	55	48	55	12	55	12	55

	point976	976	1051	55	85	55	48	55	12	55	12	55
	point977	977	1051	55	85	55	48	55	12	55	12	55
	point978	978	1051	55	85	55	48	55	12	55	12	55
	point1821	1821	1051	55	85	55	48	55	12	55	12	55
	point979	979										
EB 1 Linder to Meridian	point1816	1816	795	55	64	55	37	55	9	55	9	55
	point726	726	795	55	64	55	37	55	9	55	9	55
	point727	727	795	55	64	55	37	55	9	55	9	55
	point728	728	795	55	64	55	37	55	9	55	9	55
	point729	729	795	55	64	55	37	55	9	55	9	55
	point730	730	795	55	64	55	37	55	9	55	9	55
	point731	731	795	55	64	55	37	55	9	55	9	55
	point732	732	795	55	64	55	37	55	9	55	9	55
	point733	733	795	55	64	55	37	55	9	55	9	55
	point734	734	795	55	64	55	37	55	9	55	9	55
	point735	735	9	55	64	55	37	55	9	55	9	55
	point736	736	795	55	64	55	37	55	9	55	9	55
	point737	737	795	55	64	55	37	55	9	55	9	55
	point738	738	795	55	64	55	37	55	9	55	9	55
	point739	739	795	55	64	55	37	55	9	55	9	55
	point740	740	795	55	64	55	37	55	9	55	9	55
	point1760	1760										
EB Meridian to Linder	point1817	1817	795	55	64	55	37	55	9	55	9	55
	point813	813	795	55	64	55	37	55	9	55	9	55
	point814	814	795	55	64	55	37	55	9	55	9	55
	point815	815	795	55	64	55	37	55	9	55	9	55
	point816	816	795	55	64	55	37	55	9	55	9	55
	point817	817	795	55	64	55	37	55	9	55	9	55
	point818	818	795	55	64	55	37	55	9	55	9	55
	point819	819	795	55	64	55	37	55	9	55	9	55
	point820	820	795	55	64	55	37	55	9	55	9	55
	point821	821	795	55	64	55	37	55	9	55	9	55
	point822	822	795	55	64	55	37	55	9	55	9	55
	point823	823	795	55	64	55	37	55	9	55	9	55

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point824	824	795	55	64	55	37	55	9	55	9	55
	point825	825	795	55	64	55	37	55	9	55	9	55
	point826	826	795	55	64	55	37	55	9	55	9	55
	point827	827										
EB 3 Linder to Fox Run	point1823	1823	795	55	64	55	37	55	9	55	9	55
	point1824	1824	795	55	64	55	37	55	9	55	9	55
	point1825	1825	795	55	64	55	37	55	9	55	9	55
	point1826	1826	795	55	64	55	37	55	9	55	9	55
	point1827	1827	795	55	64	55	37	55	9	55	9	55
	point1828	1828	795	55	64	55	37	55	9	55	9	55
	point1829	1829	795	55	64	55	37	55	9	55	9	55
	point1830	1830	795	55	64	55	37	55	9	55	9	55
	point1831	1831	795	55	64	55	37	55	9	55	9	55
	point1832	1832	795	55	64	55	37	55	9	55	9	55
	point1833	1833	795	55	64	55	37	55	9	55	9	55
	point1834	1834	795	55	64	55	37	55	9	55	9	55
	point1835	1835										
Fox Run S NB	point1836	1836	104	25	6	25	3	25	0	0	0	0
	point2518	2518	104	25	6	25	3	25	0	0	0	0
	point2519	2519										
Fox Run	point1839	1839	49	25	3	25	2	25	0	0	0	0
	point2511	2511										
EB Turn 8	point1842	1842	59	25	0	0	0	0	0	0	0	0
	point1843	1843	59	25	0	0	0	0	0	0	0	0
	point1844	1844	59	25	0	0	0	0	0	0	0	0
	point1845	1845										
WB Turn Lane Fox Run	point1846	1846	51	25	0	0	0	0	0	0	0	0
	point1847	1847	51	25	0	0	0	0	0	0	0	0
	point1848	1848	51	25	0	0	0	0	0	0	0	0
	point1849	1849	51	25	0	0	0	0	0	0	0	0
	point1850	1850										
EB Merge 3	point1851	1851	285	25	0	0	0	0	0	0	0	0
	point1852	1852	285	25	0	0	0	0	0	0	0	0
	point1853	1853	285	25	0	0	0	0	0	0	0	0

INPUT: TRAFFIC FOR LAeq1h Volumes **20_26 Corridor Study**

	point1854	1854	285	25	0	0	0	0	0	0	0	0
	point1855	1855	285	25	0	0	0	0	0	0	0	0
	point1856	1856	285	25	0	0	0	0	0	0	0	0
	point1857	1857	285	25	0	0	0	0	0	0	0	0
	point1858	1858	285	25	0	0	0	0	0	0	0	0
	point1859	1859	285	25	0	0	0	0	0	0	0	0
	point1860	1860	285	25	0	0	0	0	0	0	0	0
	point1861	1861										
WB CF 5	point1862	1862	263	25	0	0	0	0	0	0	0	0
	point1863	1863	263	25	0	0	0	0	0	0	0	0
	point1864	1864	263	25	0	0	0	0	0	0	0	0
	point1865	1865	263	25	0	0	0	0	0	0	0	0
	point1866	1866	263	25	0	0	0	0	0	0	0	0
	point2530	2530										
WB CF 6	point1870	1870	263	25	0	0	0	0	0	0	0	0
	point1871	1871	263	25	0	0	0	0	0	0	0	0
	point1872	1872	263	25	0	0	0	0	0	0	0	0
	point1873	1873	263	25	0	0	0	0	0	0	0	0
	point2523	2523	263	25	0	0	0	0	0	0	0	0
	point2524	2524										
EB Turn Linder	point1878	1878	822	25	0	0	0	0	0	0	0	0
	point1879	1879	822	25	0	0	0	0	0	0	0	0
	point1880	1880	822	25	0	0	0	0	0	0	0	0
	point1881	1881	822	25	0	0	0	0	0	0	0	0
	point1882	1882	822	25	0	0	0	0	0	0	0	0
	point1883	1883	822	25	0	0	0	0	0	0	0	0
	point1884	1884	822	25	0	0	0	0	0	0	0	0
	point1885	1885	822	25	0	0	0	0	0	0	0	0
	point1886	1886	822	25	0	0	0	0	0	0	0	0
	point1887	1887	822	25	0	0	0	0	0	0	0	0
	point1888	1888	822	25	0	0	0	0	0	0	0	0
	point1889	1889	822	25	0	0	0	0	0	0	0	0
	point1890	1890	822	25	0	0	0	0	0	0	0	0
	point1891	1891	822	25	0	0	0	0	0	0	0	0

	point1892	1892										
NB 9	point1893	1893	848	40	46	40	27	40	0	0	0	0
	point1894	1894	848	40	46	40	27	40	0	0	0	0
	point1895	1895	848	40	46	40	27	40	0	0	0	0
	point1896	1896	848	40	46	40	27	40	0	0	0	0
	point1897	1897	848	40	46	40	27	40	0	0	0	0
	point1898	1898	848	40	46	40	27	40	0	0	0	0
	point1899	1899	848	40	46	40	27	40	0	0	0	0
	point1900	1900	848	40	46	40	27	40	0	0	0	0
	point1901	1901	848	40	46	40	27	40	0	0	0	0
	point1902	1902										
NB 10	point1903	1903	848	40	46	40	27	40	0	0	0	0
	point1904	1904	848	40	46	40	27	40	0	0	0	0
	point1905	1905	848	40	46	40	27	40	0	0	0	0
	point1906	1906	848	40	46	40	27	40	0	0	0	0
	point1907	1907	848	40	46	40	27	40	0	0	0	0
	point1908	1908	848	40	46	40	27	40	0	0	0	0
	point1909	1909	848	40	46	40	27	40	0	0	0	0
	point1910	1910	848	40	46	40	27	40	0	0	0	0
	point1911	1911	848	40	46	40	27	40	0	0	0	0
	point1912	1912										
SB 10	point1913	1913	2508	40	136	40	82	40	0	0	0	0
	point1914	1914	2508	40	136	40	82	40	0	0	0	0
	point1915	1915	2508	40	136	40	82	40	0	0	0	0
	point1916	1916	2508	40	136	40	82	40	0	0	0	0
	point1917	1917	2508	40	136	40	82	40	0	0	0	0
	point1918	1918	2508	40	136	40	82	40	0	0	0	0
	point1920	1920	2508	40	136	40	82	40	0	0	0	0
	point1921	1921	2508	40	136	40	82	40	0	0	0	0
	point1922	1922	2508	40	136	40	82	40	0	0	0	0
	point1923	1923	2508	40	136	40	82	40	0	0	0	0
	point1924	1924	2508	40	136	40	82	40	0	0	0	0
	point2544	2544										
SB CF3	point1934	1934	337	25	0	0	0	0	0	0	0	0

	point1935	1935	337	25	0	0	0	0	0	0	0	0
	point1936	1936	337	25	0	0	0	0	0	0	0	0
	point1937	1937	337	25	0	0	0	0	0	0	0	0
	point2538	2538										
SB CF 4	point1942	1942	331	25	0	0	0	0	0	0	0	0
	point1943	1943	331	25	0	0	0	0	0	0	0	0
	point1944	1944	331	25	0	0	0	0	0	0	0	0
	point1945	1945	331	25	0	0	0	0	0	0	0	0
	point1946	1946										
Roadway191	point1950	1950	309	25	0	0	0	0	0	0	0	0
	point1951	1951	309	25	0	0	0	0	0	0	0	0
	point1952	1952	309	25	0	0	0	0	0	0	0	0
	point1953	1953										
EB CF 4	point1968	1968	309	25	0	0	0	0	0	0	0	0
	point1969	1969	309	25	0	0	0	0	0	0	0	0
	point1970	1970	309	25	0	0	0	0	0	0	0	0
	point1971	1971	309	25	0	0	0	0	0	0	0	0
	point1972	1972										
WB Merge 3	point1987	1987	750	25	0	0	0	0	0	0	0	0
	point1988	1988	750	25	0	0	0	0	0	0	0	0
	point1989	1989	750	25	0	0	0	0	0	0	0	0
	point1990	1990	750	25	0	0	0	0	0	0	0	0
	point1991	1991	750	25	0	0	0	0	0	0	0	0
	point1992	1992	750	25	0	0	0	0	0	0	0	0
	point1993	1993	750	25	0	0	0	0	0	0	0	0
	point1994	1994	750	25	0	0	0	0	0	0	0	0
	point1995	1995	750	25	0	0	0	0	0	0	0	0
	point1996	1996	750	25	0	0	0	0	0	0	0	0
	point1997	1997	750	25	0	0	0	0	0	0	0	0
	point1998	1998	750	25	0	0	0	0	0	0	0	0
	point1999	1999	750	25	0	0	0	0	0	0	0	0
	point2000	2000	750	25	0	0	0	0	0	0	0	0
	point2001	2001	750	25	0	0	0	0	0	0	0	0
	point2002	2002	750	25	0	0	0	0	0	0	0	0

	point2003	2003	750	25	0	0	0	0	0	0	0	0
	point2004	2004	750	25	0	0	0	0	0	0	0	0
	point2005	2005	750	25	0	0	0	0	0	0	0	0
	point2006	2006	750	25	0	0	0	0	0	0	0	0
	point2007	2007	750	25	0	0	0	0	0	0	0	0
	point2008	2008										
NB CF 2	point2009	2009	173	25	0	0	0	0	0	0	0	0
	point2010	2010	173	25	0	0	0	0	0	0	0	0
	point2011	2011	173	25	0	0	0	0	0	0	0	0
	point2012	2012										
EB Turn 10	point2016	2016	170	25	0	0	0	0	0	0	0	0
	point2017	2017	170	25	0	0	0	0	0	0	0	0
	point2018	2018	170	25	0	0	0	0	0	0	0	0
	point2019	2019	170	25	0	0	0	0	0	0	0	0
	point2020	2020	170	25	0	0	0	0	0	0	0	0
	point2021	2021	170	25	0	0	0	0	0	0	0	0
	point2022	2022	170	25	0	0	0	0	0	0	0	0
	point2023	2023	170	25	0	0	0	0	0	0	0	0
	point2024	2024	170	25	0	0	0	0	0	0	0	0
	point2025	2025	170	25	0	0	0	0	0	0	0	0
	point2026	2026										
Roadway196	point2027	2027	202	25	0	0	0	0	0	0	0	0
	point2028	2028	202	25	0	0	0	0	0	0	0	0
	point2029	2029	202	25	0	0	0	0	0	0	0	0
	point2030	2030	202	25	0	0	0	0	0	0	0	0
	point2031	2031										
Long Lake	point2035	2035	374	25	20	25	12	25	0	0	0	0
	point2036	2036										
SB 11	point2038	2038	92	25	5	25	3	25	0	0	0	0
	point2552	2552										
EB 12	point2041	2041	154	25	0	0	0	0	0	0	0	0
	point2044	2044	154	25	0	0	0	0	0	0	0	0
	point2042	2042	154	25	0	0	0	0	0	0	0	0
	point2043	2043										

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Wb Turn	point2064	2064	158	25	0	0	0	0	0	0	0	0
	point2065	2065	158	25	0	0	0	0	0	0	0	0
	point2066	2066	158	25	0	0	0	0	0	0	0	0
	point2067	2067										
Roadway205	point2068	2068	141	25	0	0	0	0	0	0	0	0
	point2069	2069	141	25	0	0	0	0	0	0	0	0
	point2070	2070	141	25	0	0	0	0	0	0	0	0
	point2071	2071	141	25	0	0	0	0	0	0	0	0
	point2072	2072										
Tree Farm NB	point2077	2077	278	25	15	25	9	25	0	0	0	0
	point2079	2079										
SB 15	point2081	2081	282	25	15	25	9	25	0	0	0	0
	point2080	2080										
NB 17	point2092	2092	277	50	15	50	9	50	0	0	0	0
	point2569	2569										
BlackCat SB	point2099	2099	43	35	2	35	1	35	0	0	0	0
	point2562	2562										
EB Turn 15	point2102	2102	261	25	0	0	0	0	0	0	0	0
	point2103	2103	261	25	0	0	0	0	0	0	0	0
	point2104	2104										
EB 2 Long Lake to Linder	point2110	2110	733	55	58	55	33	55	8	55	8	55
	point2111	2111	733	55	58	55	33	55	8	55	8	55
	point2112	2112	733	55	58	55	33	55	8	55	8	55
	point2113	2113	733	55	58	55	33	55	8	55	8	55
	point2114	2114										
EB 2 Long Lake to 10 Mile	point2117	2117	733	55	58	55	33	55	8	55	8	55
	point2118	2118	733	55	58	55	33	55	8	55	8	55
	point2119	2119	733	55	58	55	33	55	8	55	8	55
	point2120	2120	733	55	58	55	33	55	8	55	8	55
	point2121	2121	733	55	58	55	33	55	8	55	8	55
	point2122	2122	733	55	58	55	33	55	8	55	8	55
	point2123	2123										
EB 2 Spurwing Greens to Long Lake	point2124	2124	722	55	58	55	33	55	8	55	8	55
	point2125	2125	722	55	58	55	33	55	8	55	8	55

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	point2126	2126	722	55	58	55	33	55	8	55	8	55
	point2127	2127	722	55	58	55	33	55	8	55	8	55
	point2128	2128										
EB 2 Blk Cat to Spurwing G	point2129	2129	744	55	60	55	34	55	9	55	9	55
	point2130	2130	744	55	60	55	34	55	9	55	9	55
	point2131	2131	744	55	60	55	34	55	9	55	9	55
	point2132	2132	744	55	60	55	34	55	9	55	9	55
	point2133	2133	744	55	60	55	34	55	9	55	9	55
	point2134	2134	744	55	60	55	34	55	9	55	9	55
	point2135	2135										
EB 2 Serentiy to Blk Cat	point2136	2136	813	55	65	55	37	55	9	55	9	55
	point2137	2137	813	55	65	55	37	55	9	55	9	55
	point2138	2138	813	55	65	55	37	55	9	55	9	55
	point2139	2139	813	55	65	55	37	55	9	55	9	55
	point2140	2140	813	55	65	55	37	55	9	55	9	55
	point2141	2141	813	55	65	55	37	55	9	55	9	55
	point2142	2142	813	55	65	55	37	55	9	55	9	55
	point2143	2143	813	55	65	55	37	55	9	55	9	55
	point2144	2144										
EB 1 Star to Blck Cat	point2203	2203	813	55	65	55	37	55	9	55	9	55
	point2204	2204	813	55	65	55	37	55	9	55	9	55
	point2205	2205	813	55	65	55	37	55	9	55	9	55
	point2206	2206	813	55	65	55	37	55	9	55	9	55
	point2212	2212	813	55	65	55	37	55	9	55	9	55
	point2207	2207	813	55	65	55	37	55	9	55	9	55
	point2208	2208	813	55	65	55	37	55	9	55	9	55
	point2209	2209	813	55	65	55	37	55	9	55	9	55
	point2210	2210	813	55	65	55	37	55	9	55	9	55
	point2211	2211										
EB 1 Long Lake to Spurwing Greens	point2218	2218	744	55	60	55	34	55	9	55	9	55
	point2213	2213	744	55	60	55	34	55	9	55	9	55
	point2214	2214	744	55	60	55	34	55	9	55	9	55
	point2215	2215	744	55	60	55	34	55	9	55	9	55
	point2216	2216	744	55	60	55	34	55	9	55	9	55

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	point2219	2219	744	55	60	55	34	55	9	55	9	55
	point2217	2217										
EB 1 Spurwing Green to Long Lake	point2227	2227	722	55	58	55	33	55	8	55	8	55
	point2220	2220	722	55	58	55	33	55	8	55	8	55
	point2221	2221	722	55	58	55	33	55	8	55	8	55
	point2222	2222	722	55	58	55	33	55	8	55	8	55
	point2223	2223	722	55	58	55	33	55	8	55	8	55
	point2224	2224	722	55	58	55	33	55	8	55	8	55
	point2225	2225	722	55	58	55	33	55	8	55	8	55
	point2226	2226										
EB 1 Long Lake to Linder	point2248	2248	733	55	58	55	33	55	8	55	8	55
	point2241	2241	733	55	58	55	33	55	8	55	8	55
	point2242	2242	733	55	58	55	33	55	8	55	8	55
	point2243	2243	733	55	58	55	33	55	8	55	8	55
	point2244	2244	733	55	58	55	33	55	8	55	8	55
	point2245	2245	733	55	58	55	33	55	8	55	8	55
	point2246	2246	733	55	58	55	33	55	8	55	8	55
	point2247	2247										
EB 3 Long Lake To Linder	point2249	2249	733	55	58	55	33	55	8	55	8	55
	point2250	2250	733	55	58	55	33	55	8	55	8	55
	point2251	2251	733	55	58	55	33	55	8	55	8	55
	point2252	2252	733	55	58	55	33	55	8	55	8	55
	point2253	2253	733	55	58	55	33	55	8	55	8	55
	point2254	2254	733	55	58	55	33	55	8	55	8	55
	point2255	2255	733	55	58	55	33	55	8	55	8	55
	point2256	2256										
EB 3 Long Lk to 10 Mile	point2257	2257	722	55	58	55	33	55	8	55	8	55
	point2258	2258	722	55	58	55	33	55	8	55	8	55
	point2259	2259	722	55	58	55	33	55	8	55	8	55
	point2260	2260	722	55	58	55	33	55	8	55	8	55
	point2261	2261	722	55	58	55	33	55	8	55	8	55
	point2262	2262	722	55	58	55	33	55	8	55	8	55
	point2263	2263										
EB 3 Ten Mile to Tree Farm	point2264	2264	744	55	60	55	34	55	9	55	9	55

	point2265	2265	744	55	60	55	34	55	9	55	9	55
	point2266	2266	744	55	60	55	34	55	9	55	9	55
	point2267	2267	744	55	60	55	34	55	9	55	9	55
	point2268	2268	744	55	60	55	34	55	9	55	9	55
	point2269	2269	744	55	60	55	34	55	9	55	9	55
	point2270	2270										
EB 3 Blk Cat to Tree Farm	point2272	2272	813	55	65	55	37	55	9	55	9	55
	point2273	2273	813	55	65	55	37	55	9	55	9	55
	point2274	2274	813	55	65	55	37	55	9	55	9	55
	point2275	2275	813	55	65	55	37	55	9	55	9	55
	point2276	2276	813	55	65	55	37	55	9	55	9	55
	point2277	2277	813	55	65	55	37	55	9	55	9	55
	point2278	2278	813	55	65	55	37	55	9	55	9	55
	point2279	2279	813	55	65	55	37	55	9	55	9	55
	point2280	2280										
WB 1 Linder to Long Lake	point2281	2281	921	55	74	55	42	55	11	55	11	55
	point2282	2282	921	55	74	55	42	55	11	55	11	55
	point2283	2283	921	55	74	55	42	55	11	55	11	55
	point2284	2284	921	55	74	55	42	55	11	55	11	55
	point2285	2285										
WB 2 Linder to Long Lake	point2368	2368	921	55	74	55	42	55	11	55	11	55
	point2369	2369	921	55	74	55	42	55	11	55	11	55
	point2370	2370	921	55	74	55	42	55	11	55	11	55
	point2371	2371	921	55	74	55	42	55	11	55	11	55
	point2372	2372										
WB 1 Linder to Serenity Lane	point2467	2467	921	55	74	55	42	55	11	55	11	55
	point2468	2468	921	55	74	55	42	55	11	55	11	55
	point2469	2469	921	55	74	55	42	55	11	55	11	55
	point2470	2470	921	55	74	55	42	55	11	55	11	55
	point2471	2471	921	55	74	55	42	55	11	55	11	55
	point2472	2472										
Fox Run-S SB	point2513	2513	109	25	6	25	4	25	0	0	0	0
	point2514	2514	109	25	6	25	4	25	0	0	0	0
	point1841	1841										

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Fox Run NB-N	point2516	2516	91	25	5	25	3	25	0	0	0	0
	point2517	2517	91	25	5	25	3	25	0	0	0	0
	point1838	1838										
WB CF 6-2	point2528	2528	263	25	0	0	0	0	0	0	0	0
	point1874	1874	263	25	0	0	0	0	0	0	0	0
	point1875	1875	263	25	0	0	0	0	0	0	0	0
	point1876	1876										
WB CF 5-2	point2532	2532	263	25	0	0	0	0	0	0	0	0
	point1867	1867	263	25	0	0	0	0	0	0	0	0
	point1868	1868	263	25	0	0	0	0	0	0	0	0
	point1869	1869										
Linder NB N	point1957	1957	1301	40	71	40	42	40	0	0	0	0
	point1958	1958	1301	40	71	40	42	40	0	0	0	0
	point1959	1959	1301	40	71	40	42	40	0	0	0	0
	point1960	1960	1301	40	71	40	42	40	0	0	0	0
	point1961	1961	1301	40	71	40	42	40	0	0	0	0
	point1962	1962	1301	40	71	40	42	40	0	0	0	0
	point1963	1963	1301	40	71	40	42	40	0	0	0	0
	point1964	1964	1301	40	71	40	42	40	0	0	0	0
	point1965	1965	1301	40	71	40	42	40	0	0	0	0
	point1966	1966	1301	40	71	40	42	40	0	0	0	0
	point1967	1967										
Linder NB	point1977	1977	1301	40	71	40	42	40	0	0	0	0
	point1978	1978	1301	40	71	40	42	40	0	0	0	0
	point1979	1979	1301	40	71	40	42	40	0	0	0	0
	point1980	1980	1301	40	71	40	42	40	0	0	0	0
	point1981	1981	1301	40	71	40	42	40	0	0	0	0
	point1982	1982	1301	40	71	40	42	40	0	0	0	0
	point1983	1983	1301	40	71	40	42	40	0	0	0	0
	point1984	1984	1301	40	71	40	42	40	0	0	0	0
	point1985	1985	1301	40	71	40	42	40	0	0	0	0
	point1986	1986										
SB CF3-2	point1938	1938	337	25	0	0	0	0	0	0	0	0
	point1939	1939	337	25	0	0	0	0	0	0	0	0

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	point1940	1940										
SB CF 4-2	point2542	2542	331	25	0	0	0	0	0	0	0	0
	point1947	1947	331	25	0	0	0	0	0	0	0	0
	point1948	1948										
SB 10-2	point1925	1925	1850	40	101	40	60	40	0	0	0	0
	point1926	1926	1850	40	101	40	60	40	0	0	0	0
	point1927	1927	1850	40	101	40	60	40	0	0	0	0
	point1928	1928	1850	40	101	40	60	40	0	0	0	0
	point1929	1929	1850	40	101	40	60	40	0	0	0	0
	point1930	1930	1850	40	101	40	60	40	0	0	0	0
	point1931	1931	1850	40	101	40	60	40	0	0	0	0
	point1932	1932	1850	40	101	40	60	40	0	0	0	0
	point1933	1933										
NB CF	point2547	2547	172	25	0	0	0	0	0	0	0	0
	point2548	2548	172	25	0	0	0	0	0	0	0	0
	point2013	2013	172	25	0	0	0	0	0	0	0	0
	point2014	2014	172	25	0	0	0	0	0	0	0	0
	point2015	2015										
EB CF 4-2	point1973	1973	309	25	0	0	0	0	0	0	0	0
	point1974	1974	309	25	0	0	0	0	0	0	0	0
	point1975	1975	309	25	0	0	0	0	0	0	0	0
	point1976	1976										
Roadway191-2	point1954	1954	309	25	0	0	0	0	0	0	0	0
	point1955	1955	309	25	0	0	0	0	0	0	0	0
	point1956	1956	309	25	0	0	0	0	0	0	0	0
	point2534	2534	309	25	0	0	0	0	0	0	0	0
	point2535	2535										
SB 11-2	point2039	2039	374	25	20	25	12	25	0	0	0	0
	point2040	2040										
Long Lake -2	point2554	2554	46	25	3	25	2	25	0	0	0	0
	point2037	2037										
WB 2 Linder toTree Farm	point2556	2556	920	55	74	55	42	55	11	55	11	55
	point2373	2373	920	55	74	55	42	55	11	55	11	55
	point2374	2374	920	55	74	55	42	55	11	55	11	55

	point2375	2375	920	55	74	55	42	55	11	55	11	55
	point2376	2376	920	55	74	55	42	55	11	55	11	55
	point2377	2377	920	55	74	55	42	55	11	55	11	55
	point2378	2378	920	55	74	55	42	55	11	55	11	55
	point2379	2379	920	55	74	55	42	55	11	55	11	55
	point2380	2380	920	55	74	55	42	55	11	55	11	55
	point2381	2381	920	55	74	55	42	55	11	55	11	55
	point2382	2382	920	55	74	55	42	55	11	55	11	55
	point2383	2383	920	55	74	55	42	55	11	55	11	55
	point2384	2384	920	55	74	55	42	55	11	55	11	55
	point2385	2385										
WB 1 Long Lake to Tree Farm	point2557	2557	920	55	74	55	42	55	11	55	11	55
	point2286	2286	920	55	74	55	42	55	11	55	11	55
	point2287	2287	920	55	74	55	42	55	11	55	11	55
	point2288	2288	920	55	74	55	42	55	11	55	11	55
	point2289	2289	920	55	74	55	42	55	11	55	11	55
	point2290	2290	920	55	74	55	42	55	11	55	11	55
	point2291	2291	920	55	74	55	42	55	11	55	11	55
	point2292	2292	920	55	74	55	42	55	11	55	11	55
	point2293	2293	920	55	74	55	42	55	11	55	11	55
	point2294	2294	920	55	74	55	42	55	11	55	11	55
	point2295	2295	920	55	74	55	42	55	11	55	11	55
	point2296	2296	920	55	74	55	42	55	11	55	11	55
	point2297	2297	920	55	74	55	42	55	11	55	11	55
	point2298	2298										
WB 1 Linder to tree farm	point2558	2558	920	55	74	55	42	55	11	55	11	55
	point2474	2474	920	55	74	55	42	55	11	55	11	55
	point2475	2475	920	55	74	55	42	55	11	55	11	55
	point2476	2476	920	55	74	55	42	55	11	55	11	55
	point2477	2477	920	55	74	55	42	55	11	55	11	55
	point2478	2478	920	55	74	55	42	55	11	55	11	55
	point2479	2479	920	55	74	55	42	55	11	55	11	55
	point2480	2480	920	55	74	55	42	55	11	55	11	55
	point2481	2481	920	55	74	55	42	55	11	55	11	55

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	point2482	2482	920	55	74	55	42	55	11	55	11	55
	point2483	2483	920	55	74	55	42	55	11	55	11	55
	point2484	2484	920	55	74	55	42	55	11	55	11	55
	point2485	2485	920	55	74	55	42	55	11	55	11	55
	point2486	2486										
WB 1Tree Farm to Blk Cat	point2583	2583	922	55	74	55	42	55	11	55	11	55
	point2584	2584	922	55	74	55	42	55	11	55	11	55
	point2585	2585	922	55	74	55	42	55	11	55	11	55
	point2299	2299	922	55	74	55	42	55	11	55	11	55
	point2300	2300	922	55	74	55	42	55	11	55	11	55
	point2301	2301	922	55	74	55	42	55	11	55	11	55
	point2302	2302	922	55	74	55	42	55	11	55	11	55
	point2303	2303	922	55	74	55	42	55	11	55	11	55
	point2304	2304	922	55	74	55	42	55	11	55	11	55
	point2586	2586	922	55	74	55	42	55	11	55	11	55
	point2587	2587	922	55	74	55	42	55	11	55	11	55
	point2588	2588										
WB 2 Tree Farm to Blk Cat	point2580	2580	922	55	74	55	42	55	11	55	11	55
	point2581	2581	922	55	74	55	42	55	11	55	11	55
	point2582	2582	922	55	74	55	42	55	11	55	11	55
	point2386	2386	922	55	74	55	42	55	11	55	11	55
	point2387	2387	922	55	74	55	42	55	11	55	11	55
	point2388	2388	922	55	74	55	42	55	11	55	11	55
	point2389	2389	922	55	74	55	42	55	11	55	11	55
	point2390	2390	922	55	74	55	42	55	11	55	11	55
	point2391	2391	922	55	74	55	42	55	11	55	11	55
	point2577	2577	922	55	74	55	42	55	11	55	11	55
	point2578	2578	922	55	74	55	42	55	11	55	11	55
	point2579	2579										
WB 1 Tree Farm to Blk Cat	point2561	2561	922	55	74	55	42	55	11	55	11	55
	point2487	2487	922	55	74	55	42	55	11	55	11	55
	point2488	2488	922	55	74	55	42	55	11	55	11	55
	point2489	2489	922	55	74	55	42	55	11	55	11	55
	point2490	2490	922	55	74	55	42	55	11	55	11	55

	point2491	2491	922	55	74	55	42	55	11	55	11	55
	point2492	2492	922	55	74	55	42	55	11	55	11	55
	point2574	2574	922	55	74	55	42	55	11	55	11	55
	point2575	2575	922	55	74	55	42	55	11	55	11	55
	point2576	2576										
BlackCat SB-2	point2565	2565	306	50	17	50	10	50	0	0	0	0
	point2566	2566	306	50	17	50	10	50	0	0	0	0
	point2101	2101										
NB 1Black Cat	point2568	2568	43	35	2	35	1	35	0	0	0	0
	point2094	2094										
WB 1 Black Cat to Star	point2571	2571	985	55	79	55	45	55	11	55	11	55
	point2306	2306	985	55	79	55	45	55	11	55	11	55
	point2307	2307	985	55	79	55	45	55	11	55	11	55
	point2308	2308	985	55	79	55	45	55	11	55	11	55
	point2309	2309	985	55	79	55	45	55	11	55	11	55
	point2310	2310	985	55	79	55	45	55	11	55	11	55
	point2311	2311	985	55	79	55	45	55	11	55	11	55
	point2312	2312	985	55	79	55	45	55	11	55	11	55
	point2313	2313										
WB 2 Blck Cat To Star	point2572	2572	985	55	79	55	45	55	11	55	11	55
	point2393	2393	985	55	79	55	45	55	11	55	11	55
	point2394	2394	985	55	79	55	45	55	11	55	11	55
	point2395	2395	985	55	79	55	45	55	11	55	11	55
	point2396	2396	985	55	79	55	45	55	11	55	11	55
	point2397	2397	985	55	79	55	45	55	11	55	11	55
	point2398	2398	985	55	79	55	45	55	11	55	11	55
	point2399	2399										
WB 1 Blk Cat to Star	point2573	2573	985	55	79	55	45	55	11	55	11	55
	point2494	2494	985	55	79	55	45	55	11	55	11	55
	point2495	2495	985	55	79	55	45	55	11	55	11	55
	point2496	2496	985	55	79	55	45	55	11	55	11	55
	point2497	2497	985	55	79	55	45	55	11	55	11	55
	point2498	2498	985	55	79	55	45	55	11	55	11	55
	point2499	2499	985	55	79	55	45	55	11	55	11	55

INPUT: RECEIVERS **20_26 Corridor Study**

	point2500	2500	985	55	79	55	45	55	11	55	11	55
	point2501	2501	985	55	79	55	45	55	11	55	11	55
	point2502	2502										

C126

Axiom Points
K Points

15 October 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20 26
RUN: ER & 20 26 Build
BARRIER DESIGN: INPUT HEIGHTS

ATMOSPHERICS: 68 deg F, 50% RH

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
147a	1	1	0.0	62.7	66	62.7	10	----	62.7	0.0	8	-8.0
149	2	1	0.0	64.6	66	64.6	10	----	64.6	0.0	8	-8.0
150	3	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0
151	4	1	0.0	63.1	66	63.1	10	----	63.1	0.0	8	-8.0
152	7	1	0.0	69.2	66	69.2	10	Snd Lvl	69.2	0.0	8	-8.0
153	8	1	0.0	73.8	66	73.8	10	Snd Lvl	73.8	0.0	8	-8.0
154	9	1	0.0	71.6	66	71.6	10	Snd Lvl	71.6	0.0	8	-8.0
156	10	1	0.0	67.2	66	67.2	10	Snd Lvl	67.2	0.0	8	-8.0
154	11	1	0.0	62.8	66	62.8	10	----	62.8	0.0	8	-8.0
157	13	1	0.0	70.6	66	70.6	10	Snd Lvl	70.6	0.0	8	-8.0
159	14	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
160	15	1	0.0	67.0	66	67.0	10	Snd Lvl	67.0	0.0	8	-8.0
161	16	1	0.0	61.4	66	61.4	10	----	61.4	0.0	8	-8.0
158	17	1	0.0	66.4	66	66.4	10	Snd Lvl	66.4	0.0	8	-8.0
162	20	1	0.0	64.9	66	64.9	10	----	64.9	0.0	8	-8.0
163	26	1	0.0	68.2	66	68.2	10	Snd Lvl	68.2	0.0	8	-8.0
164	32	1	0.0	67.4	66	67.4	10	Snd Lvl	67.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	17	0.0	0.0	0.0
All Impacted	10	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

Axiom Points
K Points

15 October 2016
TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 20 26
RUN: ER & 20 26 Build

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
EB Chinden 1	12.0	point1	1	2,464,199.0	728,209.0	2,620.00				Average	
		point2	2	2,464,499.0	728,205.0	2,620.00				Average	
		point3	3	2,464,799.0	728,201.0	2,620.00				Average	
		point4	4	2,465,099.0	728,197.0	2,620.00					
EB Chinden 2	12.0	point10	10	2,464,199.0	728,221.0	2,620.00				Average	
		point11	11	2,464,499.0	728,217.0	2,620.00				Average	
		point12	12	2,464,799.0	728,213.0	2,620.00				Average	
		point13	13	2,465,099.0	728,209.0	2,620.00					
WB Chinden 1	12.0	point18	18	2,466,132.0	728,251.0	2,620.00				Average	
		point19	19	2,465,832.0	728,255.0	2,620.00				Average	
		point20	20	2,465,532.0	728,259.0	2,620.00				Average	
		point21	21	2,465,232.0	728,263.0	2,620.00					
NB Eagle 1	12.0	point52	52	2,465,218.0	726,967.0	2,620.00				Average	
		point53	53	2,465,209.0	727,267.0	2,620.00				Average	
		point54	54	2,465,206.0	727,567.0	2,620.00				Average	
		point55	55	2,465,204.0	727,867.0	2,620.00				Average	
		point56	56	2,465,203.0	728,167.0	2,620.00					
SB Eagle 1	12.0	point62	62	2,465,135.0	729,326.0	2,592.00				Average	
		point63	63	2,465,132.0	729,026.0	2,606.00				Average	
		point64	64	2,465,133.0	728,726.0	2,620.00				Average	
		point65	65	2,465,134.0	728,426.0	2,620.00					
SB Eagle 2	12.0	point70	70	2,465,147.0	729,326.0	2,592.00				Average	
		point71	71	2,465,144.0	729,026.0	2,606.00				Average	
		point72	72	2,465,145.0	728,726.0	2,620.00				Average	
		point73	73	2,465,146.0	728,426.0	2,620.00					

NB Eagle 2	12.0	point80	80	2,465,206.0	726,967.0	2,620.00				Average	
		point81	81	2,465,197.0	727,267.0	2,620.00				Average	
		point82	82	2,465,194.0	727,567.0	2,620.00				Average	
		point83	83	2,465,192.0	727,867.0	2,620.00				Average	
		point84	84	2,465,191.0	728,167.0	2,620.00					
EB Chinden Left Turn	12.0	point88	88	2,464,199.0	728,229.0	2,620.00				Average	
		point89	89	2,464,399.0	728,229.0	2,620.00				Average	
		point90	90	2,464,599.0	728,227.0	2,620.00				Average	
		point91	91	2,464,799.0	728,225.0	2,620.00				Average	
		point92	92	2,464,999.0	728,222.0	2,620.00					
Eagle Left Turn	12.0	point94	94	2,464,398.0	728,239.0	2,620.00				Average	
		point95	95	2,464,598.0	728,239.0	2,620.00				Average	
		point96	96	2,464,798.0	728,237.0	2,620.00				Average	
		point97	97	2,464,998.0	728,234.0	2,620.00				Average	
		point98	98	2,465,095.0	728,233.0	2,620.00					
EB Chinden Right Turn	12.0	point99	99	2,464,199.0	728,197.0	2,620.00				Average	
		point100	100	2,464,499.0	728,191.0	2,620.00				Average	
		point101	101	2,464,799.0	728,186.0	2,620.00				Average	
		point102	102	2,465,050.0	728,182.0	2,620.00					
ER to Chinden RIght turn drops	12.0	point103	103	2,465,084.0	728,278.0	2,620.00				Average	
		point104	104	2,464,784.0	728,281.0	2,620.00				Average	
		point105	105	2,464,484.0	728,285.0	2,620.00				Average	
		point106	106	2,464,200.0	728,289.0	2,620.00					
Chinden to ER SB	12.0	point107	107	2,465,082.0	728,148.0	2,620.00				Average	
		point108	108	2,465,090.0	727,848.0	2,620.00				Average	
		point109	109	2,465,110.0	727,551.0	2,620.00				Average	
		point110	110	2,465,112.0	727,254.0	2,620.00				Average	
		point111	111	2,465,111.0	726,966.0	2,620.00					
NB Eagle CF Lane 1	12.0	point112	112	2,465,195.0	726,961.0	2,620.00				Average	
		point113	113	2,465,171.0	727,264.0	2,620.00				Average	
		point114	114	2,465,169.0	727,564.0	2,620.00				Average	
		point198	198	2,465,155.2	727,637.8	2,620.00					
Roadway17	12.0	point117	117	2,465,201.0	726,967.0	0.00				Average	
		point118	118	2,465,183.0	727,266.0	0.00				Average	
		point119	119	2,465,181.0	727,566.0	0.00				Average	
		point202	202	2,465,167.2	727,639.5	0.00					
NB Eagle RIght TUrn Lane	12.0	point122	122	2,465,215.0	726,967.0	2,620.00				Average	
		point123	123	2,465,209.0	727,267.0	2,620.00				Average	

		point124	124	2,465,216.0	727,567.0	2,620.00				Average	
		point125	125	2,465,216.0	727,867.0	2,620.00				Average	
		point126	126	2,465,220.0	728,156.0	2,620.00					
EB Chinden drop lane from NB Eagle	12.0	point127	127	2,465,236.0	728,165.0	2,620.00				Average	
		point128	128	2,465,536.0	728,179.0	2,620.00				Average	
		point129	129	2,465,836.0	728,178.0	2,620.00				Average	
		point130	130	2,466,131.0	728,178.0	2,620.00					
WB Chinden L Turn	12.0	point131	131	2,466,132.0	728,219.0	2,620.00				Average	
		point132	132	2,465,933.0	728,219.0	2,620.00				Average	
		point133	133	2,465,733.0	728,221.0	2,620.00				Average	
		point134	134	2,465,533.0	728,223.0	2,620.00				Average	
		point135	135	2,465,333.0	728,226.0	2,620.00					
WB Chinden Left Turn 1	12.0	point136	136	2,466,132.0	728,229.0	2,620.00				Average	
		point137	137	2,465,832.0	728,231.0	2,620.00				Average	
		point138	138	2,465,532.0	728,235.0	2,620.00				Average	
		point139	139	2,465,243.0	728,239.0	2,620.00					
WB Chinden R turn	12.0	point143	143	2,466,132.0	728,260.0	2,620.00				Average	
		point142	142	2,465,899.0	728,266.0	2,620.00				Average	
		point141	141	2,465,599.0	728,270.0	2,620.00				Average	
		point140	140	2,465,299.0	728,276.0	2,620.00					
WB Chinden Right Turn 1	12.0	point144	144	2,466,131.0	728,275.0	2,620.00				Average	
		point145	145	2,465,835.0	728,280.0	2,620.00				Average	
		point146	146	2,465,535.0	728,286.0	2,620.00				Average	
		point147	147	2,465,293.0	728,290.0	2,620.00					
SB Eable CF 1	12.0	point154	154	2,465,150.0	729,326.0	2,592.00				Average	
		point155	155	2,465,156.0	729,026.0	2,606.00				Average	
		point156	156	2,465,183.0	728,739.0	2,620.00				Average	
		point217	217	2,465,185.5	728,720.5	2,620.00					
SB Eagle Road RT	12.0	point163	163	2,465,135.0	729,326.0	2,592.00				Average	
		point164	164	2,465,132.0	729,027.0	2,606.00				Average	
		point165	165	2,465,126.0	728,727.0	2,620.00				Average	
		point166	166	2,465,121.0	728,427.0	2,620.00				Average	
		point167	167	2,465,122.0	728,299.0	2,620.00					
NB Eagle Drop Lane from Chinden Right	12.0	point168	168	2,465,257.0	728,316.0	2,620.00				Average	
		point169	169	2,465,247.0	728,616.0	2,620.00				Average	
		point170	170	2,465,215.0	728,911.0	2,608.00				Average	
		point171	171	2,465,205.0	729,210.0	2,602.00				Average	
		point172	172	2,465,207.0	729,325.0	2,592.00					

INPUT: ROADWAYS

20 26

SB Eagle CF 2	12.0	point173	173	2,465,155.0	729,326.0	2,592.00				Average	
		point174	174	2,465,168.0	729,027.0	2,606.00				Average	
		point218	218	2,465,181.5	728,883.5	2,613.00				Average	
		point219	219	2,465,188.2	728,811.8	2,616.50					
NB Eagle Drop Lane from Chinden Right t	12.0	point178	178	2,465,270.0	728,312.0	2,620.00				Average	
		point179	179	2,465,266.0	728,512.0	2,620.00				Average	
		point180	180	2,465,245.0	728,711.0	2,620.00				Average	
		point181	181	2,465,225.0	728,908.0	2,620.00				Average	
		point182	182	2,465,211.0	729,108.0	2,620.00					
EB Chinden 1-2	12.0	point183	183	2,465,236.0	728,197.0	2,620.00				Average	
		point5	5	2,465,399.0	728,193.0	2,620.00				Average	
		point6	6	2,465,699.0	728,189.0	2,620.00				Average	
		point7	7	2,465,999.0	728,185.0	2,620.00				Average	
		point8	8	2,466,131.0	728,183.0	2,620.00					
EB Chinden 2-2	12.0	point184	184	2,465,236.0	728,209.0	2,620.00				Average	
		point14	14	2,465,399.0	728,205.0	2,620.00				Average	
		point15	15	2,465,699.0	728,201.0	2,620.00				Average	
		point16	16	2,465,999.0	728,197.0	2,620.00				Average	
		point17	17	2,466,131.0	728,195.0	2,620.00					
WB Chinden 2	12.0	point186	186	2,466,132.0	728,239.0	2,620.00				Average	
		point187	187	2,465,832.0	728,243.0	2,620.00				Average	
		point188	188	2,465,532.0	728,247.0	2,620.00				Average	
		point189	189	2,465,232.0	728,251.0	2,620.00					
WB Chinden 2-2	12.0	point195	195	2,465,095.0	728,251.0	2,620.00				Average	
		point194	194	2,465,082.0	728,253.0	2,620.00				Average	
		point190	190	2,464,932.0	728,255.0	2,620.00				Average	
		point191	191	2,464,632.0	728,259.0	2,620.00				Average	
		point192	192	2,464,332.0	728,263.0	2,620.00				Average	
		point193	193	2,464,199.0	728,265.0	2,620.00					
WB Chinden 1-2	12.0	point197	197	2,465,095.0	728,263.0	2,620.00				Average	
		point196	196	2,465,082.0	728,265.0	2,620.00				Average	
		point22	22	2,464,932.0	728,267.0	2,620.00				Average	
		point23	23	2,464,632.0	728,271.0	2,620.00				Average	
		point24	24	2,464,332.0	728,275.0	2,620.00				Average	
		point25	25	2,464,200.0	728,277.0	2,620.00					
NB Eagle CF Lane 1-2	12.0	point115	115	2,465,114.0	727,859.0	2,620.00				Average	
		point116	116	2,465,103.0	728,160.0	2,620.00					
Roadway17-2	12.0	point120	120	2,465,126.0	727,860.0	0.00				Average	

INPUT: ROADWAYS

20 26

		point121	121	2,465,115.0	728,160.0	0.00					
SB Eable CF 1-2	12.0	point208	208	2,465,202.5	728,591.0	2,620.00				Average	
		point209	209	2,465,212.2	728,517.0	2,620.00				Average	
		point157	157	2,465,222.0	728,443.0	2,620.00				Average	
		point158	158	2,465,223.0	728,299.0	2,620.00					
SB Eagle CF 2-2	12.0	point210	210	2,465,204.8	728,666.0	2,620.00				Average	
		point211	211	2,465,214.5	728,592.0	2,620.00				Average	
		point212	212	2,465,224.2	728,518.0	2,620.00				Average	
		point176	176	2,465,234.0	728,444.0	2,620.00				Average	
		point177	177	2,465,235.0	728,299.0	2,620.00					
SB Eagle south of Eagle	12.0	point220	220	2,465,146.0	728,426.0	2,620.00				Average	
		point74	74	2,465,147.0	728,126.0	2,620.00				Average	
		point75	75	2,465,149.0	727,826.0	2,620.00				Average	
		point76	76	2,465,151.0	727,526.0	2,620.00				Average	
		point77	77	2,465,161.0	727,227.0	2,620.00				Average	
		point78	78	2,465,172.0	726,966.0	2,620.00					
SB Eagle s of 2026	12.0	point221	221	2,465,134.0	728,426.0	2,620.00				Average	
		point66	66	2,465,135.0	728,126.0	2,620.00				Average	
		point67	67	2,465,137.0	727,826.0	2,620.00				Average	
		point68	68	2,465,139.0	727,526.0	2,620.00				Average	
		point69	69	2,465,149.0	726,966.0	2,620.00					
NB Eagle N	12.0	point222	222	2,465,191.0	728,167.0	2,620.00				Average	
		point85	85	2,465,190.0	728,467.0	2,620.00				Average	
		point86	86	2,465,189.0	728,767.0	2,620.00				Average	
		point87	87	2,465,188.0	729,067.0	2,602.00					
NB Eagle 1-2	12.0	point223	223	2,465,203.0	728,167.0	2,620.00				Average	
		point57	57	2,465,202.0	728,467.0	2,620.00				Average	
		point58	58	2,465,201.0	728,767.0	2,620.00				Average	
		point59	59	2,465,200.0	729,067.0	2,602.00				Average	
		point60	60	2,465,199.0	729,325.0	2,592.00					

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Axiom Points
K Points

15 October 2016
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 20 26
RUN: ER & 20 26 Build

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
EB Chinden 1	point1	1	817	50	66	50	38	50	9	50	9	50
	point2	2	817	50	66	50	38	50	9	50	9	50
	point3	3	817	50	66	50	38	50	9	50	9	50
	point4	4										
EB Chinden 2	point10	10	817	50	66	50	38	50	9	50	9	50
	point11	11	817	50	66	50	38	50	9	50	9	50
	point12	12	817	50	66	50	38	50	9	50	9	50
	point13	13										
WB Chinden 1	point18	18	865	50	69	50	30	50	10	50	10	50
	point19	19	865	50	69	50	30	50	10	50	10	50
	point20	20	865	50	69	50	30	50	10	50	10	50
	point21	21										
NB Eagle 1	point52	52	892	55	71	55	30	55	10	55	10	55
	point53	53	892	55	71	55	30	55	10	55	10	55
	point54	54	892	55	71	55	30	55	10	55	10	55
	point55	55	892	55	71	55	30	55	10	55	10	55
	point56	56										
SB Eagle 1	point62	62	864	55	69	55	30	55	10	55	10	55
	point63	63	864	55	69	55	30	55	10	55	10	55
	point64	64	864	55	69	55	30	55	10	55	10	55
	point65	65										
SB Eagle 2	point70	70	864	55	69	55	30	55	10	55	10	55

	point71	71	864	55	69	55	30	55	10	55	10	55
	point72	72	864	55	69	55	30	55	10	55	10	55
	point73	73										
NB Eagle 2	point80	80	892	55	71	55	30	55	10	55	10	55
	point81	81	892	55	71	55	30	55	10	55	10	55
	point82	82	892	55	71	55	30	55	10	55	10	55
	point83	83	892	55	71	55	30	55	10	55	10	55
	point84	84										
EB Chinden Left Turn	point88	88	153	25	0	0	0	0	0	0	0	0
	point89	89	153	25	0	0	0	0	0	0	0	0
	point90	90	153	25	0	0	0	0	0	0	0	0
	point91	91	153	25	0	0	0	0	0	0	0	0
	point92	92										
Eagle Left Turn	point94	94	153	25	0	0	0	0	0	0	0	0
	point95	95	153	25	0	0	0	0	0	0	0	0
	point96	96	153	25	0	0	0	0	0	0	0	0
	point97	97	153	25	0	0	0	0	0	0	0	0
	point98	98										
EB Chinden Right Turn	point99	99	148	25	0	0	0	0	0	0	0	0
	point100	100	148	25	0	0	0	0	0	0	0	0
	point101	101	148	25	0	0	0	0	0	0	0	0
	point102	102										
ER to Chinden RIght turn drops	point103	103	260	25	0	0	0	0	0	0	0	0
	point104	104	260	25	0	0	0	0	0	0	0	0
	point105	105	260	25	0	0	0	0	0	0	0	0
	point106	106										
Chinden to ER SB	point107	107	148	25	0	0	0	0	0	0	0	0
	point108	108	148	25	0	0	0	0	0	0	0	0
	point109	109	148	25	0	0	0	0	0	0	0	0
	point110	110	148	25	0	0	0	0	0	0	0	0
	point111	111										
NB Eagle CF Lane 1	point112	112	137	25	0	0	0	0	0	0	0	0
	point113	113	137	25	0	0	0	0	0	0	0	0
	point114	114	137	25	0	0	0	0	0	0	0	0
	point198	198										

INPUT: TRAFFIC FOR LAeq1h Volumes **20 26**

Roadway17	point117	117	137	25	0	0	0	0	0	0	0	0
	point118	118	137	25	0	0	0	0	0	0	0	0
	point119	119	137	25	0	0	0	0	0	0	0	0
	point202	202										
NB Eagle RIght TUrn Lane	point122	122	238	25	0	0	0	0	0	0	0	0
	point123	123	238	25	0	0	0	0	0	0	0	0
	point124	124	238	25	0	0	0	0	0	0	0	0
	point125	125	238	25	0	0	0	0	0	0	0	0
	point126	126										
EB Chinden drop lane from NB Eagle	point127	127	238	25	0	0	0	0	0	0	0	0
	point128	128	238	25	0	0	0	0	0	0	0	0
	point129	129	238	25	0	0	0	0	0	0	0	0
	point130	130										
WB Chinden L Turn	point131	131	165	25	0	0	0	0	0	0	0	0
	point132	132	165	25	0	0	0	0	0	0	0	0
	point133	133	165	25	0	0	0	0	0	0	0	0
	point134	134	165	25	0	0	0	0	0	0	0	0
	point135	135										
WB Chinden Left Turn 1	point136	136	165	25	0	0	0	0	0	0	0	0
	point137	137	165	25	0	0	0	0	0	0	0	0
	point138	138	165	25	0	0	0	0	0	0	0	0
	point139	139										
WB Chinden R turn	point143	143	368	25	0	0	0	0	0	0	0	0
	point142	142	368	25	0	0	0	0	0	0	0	0
	point141	141	368	25	0	0	0	0	0	0	0	0
	point140	140										
WB Chinden Right Turn 1	point144	144	368	25	0	0	0	0	0	0	0	0
	point145	145	368	25	0	0	0	0	0	0	0	0
	point146	146	368	25	0	0	0	0	0	0	0	0
	point147	147										
SB Eable CF 1	point154	154	231	25	0	0	0	0	0	0	0	0
	point155	155	231	25	0	0	0	0	0	0	0	0
	point156	156	231	25	0	0	0	0	0	0	0	0
	point217	217										
SB Eagle Road RT	point163	163	260	25	0	0	0	0	0	0	0	0

	point164	164	260	25	0	0	0	0	0	0	0	0
	point165	165	260	25	0	0	0	0	0	0	0	0
	point166	166	260	25	0	0	0	0	0	0	0	0
	point167	167										
NB Eagle Drop Lane from Chinden Right	point168	168	368	25	0	0	0	0	0	0	0	0
	point169	169	368	25	0	0	0	0	0	0	0	0
	point170	170	368	25	0	0	0	0	0	0	0	0
	point171	171	368	25	0	0	0	0	0	0	0	0
	point172	172										
SB Eagle CF 2	point173	173	231	25	0	0	0	0	0	0	0	0
	point174	174	231	25	0	0	0	0	0	0	0	0
	point218	218	231	25	0	0	0	0	0	0	0	0
	point219	219										
NB Eagle Drop Lane from Chinden Right t	point178	178	368	25	0	0	0	0	0	0	0	0
	point179	179	368	25	0	0	0	0	0	0	0	0
	point180	180	368	25	0	0	0	0	0	0	0	0
	point181	181	368	25	0	0	0	0	0	0	0	0
	point182	182										
EB Chinden 1-2	point183	183	529	50	42	50	18	50	6	50	6	50
	point5	5	529	50	42	50	18	50	6	50	6	50
	point6	6	529	50	42	50	18	50	6	50	6	50
	point7	7	529	50	42	50	18	50	6	50	6	50
	point8	8										
EB Chinden 2-2	point184	184	529	50	42	50	18	50	6	50	6	50
	point14	14	529	50	42	50	18	50	6	50	6	50
	point15	15	529	50	42	50	18	50	6	50	6	50
	point16	16	529	50	42	50	18	50	6	50	6	50
	point17	17										
WB Chinden 2	point186	186	865	50	69	50	30	50	10	50	10	50
	point187	187	865	50	69	50	30	50	10	50	10	50
	point188	188	865	50	69	50	30	50	10	50	10	50
	point189	189										
WB Chinden 2-2	point195	195	971	50	78	50	45	50	11	50	11	50
	point194	194	971	50	78	50	45	50	11	50	11	50
	point190	190	971	50	78	50	45	50	11	50	11	50

	point191	191	971	50	78	50	45	50	11	50	11	50
	point192	192	971	50	78	50	45	50	11	50	11	50
	point193	193										
WB Chinden 1-2	point197	197	971	50	78	50	45	50	11	50	11	50
	point196	196	971	50	78	50	45	50	11	50	11	50
	point22	22	971	50	78	50	45	50	11	50	11	50
	point23	23	971	50	78	50	45	50	11	50	11	50
	point24	24	971	50	78	50	45	50	11	50	11	50
	point25	25										
NB Eagle CF Lane 1-2	point115	115	137	25	0	0	0	0	0	0	0	0
	point116	116										
Roadway17-2	point120	120	137	25	0	0	0	0	0	0	0	0
	point121	121										
SB Eable CF 1-2	point208	208	231	25	0	0	0	0	0	0	0	0
	point209	209	231	25	0	0	0	0	0	0	0	0
	point157	157	231	25	0	0	0	0	0	0	0	0
	point158	158										
SB Eagle CF 2-2	point210	210	231	25	0	0	0	0	0	0	0	0
	point211	211	231	25	0	0	0	0	0	0	0	0
	point212	212	231	25	0	0	0	0	0	0	0	0
	point176	176	231	25	0	0	0	0	0	0	0	0
	point177	177										
SB Eagle south of Eagle	point220	220	758	55	61	55	26	55	8	55	8	55
	point74	74	758	55	61	55	26	55	8	55	8	55
	point75	75	758	55	61	55	26	55	8	55	8	55
	point76	76	758	55	61	55	26	55	8	55	8	55
	point77	77	758	55	61	55	26	55	8	55	8	55
	point78	78										
SB Eagle s of 2026	point221	221	1124	55	89	55	37	55	13	55	13	55
	point66	66	1124	55	89	55	37	55	13	55	13	55
	point67	67	1124	55	89	55	37	55	13	55	13	55
	point68	68	1124	55	89	55	37	55	13	55	13	55
	point69	69										
NB Eagle N	point222	222	864	55	69	55	30	55	10	55	10	55
	point85	85	864	55	69	55	30	55	10	55	10	55

INPUT: TRAFFIC FOR LAeq1h Volumes **20 26**

	point86	86	864	55	69	55	30	55	10	55	10	55
	point87	87										
NB Eagle 1-2	point223	223	864	55	69	55	30	55	10	55	10	55
	point57	57	864	55	69	55	30	55	10	55	10	55
	point58	58	864	55	69	55	30	55	10	55	10	55
	point59	59	864	55	69	55	30	55	10	55	10	55
	point60	60										

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Axiom Points
K Points

15 October 2016
TNM 2.5

INPUT: RECEIVERS
PROJECT/CONTRACT: 20 26
RUN: ER & 20 26 Build

Receiver Name	No.	#DUs	Coordinates (ground) X	Y	Z	Height above Ground	Input Sound Levels and Criteria: Existing LAeq1h	Impact Criteria LAeq1h	Impact Criteria Sub'l	NR Goal	Active in Calc.
			ft	ft	ft	ft	dBA	dBA	dB	dB	
147a	1	1	2,464,842.0	728,630.0	2,620.00	4.92	0.00	66	10.0	8.0	Y
149	2	1	2,464,926.0	728,802.0	2,614.00	4.92	0.00	66	10.0	8.0	Y
150	3	1	2,464,931.0	729,052.0	2,620.00	4.92	0.00	66	10.0	8.0	Y
151	4	1	2,464,905.0	729,224.0	2,620.00	4.92	0.00	66	10.0	8.0	Y
152	7	1	2,465,275.0	728,979.0	2,620.00	4.92	0.00	66	10.0	8.0	Y
153	8	1	2,465,264.0	728,843.0	2,620.00	4.92	0.00	66	10.0	8.0	Y
154	9	1	2,465,327.0	728,494.0	2,620.00	4.92	0.00	66	10.0	8.0	Y
156	10	1	2,465,629.0	728,396.0	2,620.00	4.92	0.00	66	10.0	8.0	Y
154	11	1	2,465,738.0	728,619.0	2,615.00	4.92	0.00	66	10.0	8.0	Y
157	13	1	2,465,342.0	728,052.0	2,621.00	4.92	0.00	66	10.0	8.0	Y
159	14	1	2,465,921.0	728,057.0	2,621.00	4.92	0.00	66	10.0	8.0	Y
160	15	1	2,466,035.0	728,062.0	2,621.00	4.92	0.00	66	10.0	8.0	Y
161	16	1	2,465,780.0	727,724.0	2,621.00	4.92	0.00	66	10.0	8.0	Y
158	17	1	2,465,415.0	727,468.0	2,621.00	4.92	0.00	66	10.0	8.0	Y
162	20	1	2,464,590.0	727,940.0	2,620.00	4.92	0.00	66	10.0	8.0	Y
163	26	1	2,464,992.0	727,775.0	2,620.00	4.92	0.00	66	10.0	8.0	Y
164	32	1	2,465,014.0	727,322.0	2,620.00	4.92	0.00	66	10.0	8.0	Y

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Axiom Points 15 October 2016
K Points TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 20 26
RUN: ER & 20 26 Build

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Increment	Perturbs #Up	#Dn	On Struct?	Important Reflections?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Retaining Wall 1	W	0.00	99.99	0.00				0.00	point1	1	2,465,114.0	729,384.0	2,570.00	3.00	0.00	0	0		
									point2	2	2,465,104.0	729,584.0	2,565.00	3.00	0.00	0	0		
									point3	3	2,465,092.0	729,667.0	2,565.00	3.00					
Retaining Wall 2	W	0.00	99.99	0.00				0.00	point4	4	2,465,115.0	729,323.0	2,592.00	3.00	0.00	0	0		
									point5	5	2,465,111.0	729,123.0	2,602.00	3.00	0.00	0	0		
									point6	6	2,465,107.0	728,923.0	2,608.00	3.00	0.00	0	0		
									point7	7	2,465,106.0	728,826.0	2,608.00	3.00					
Retaining Wall 3	W	0.00	99.99	0.00				0.00	point8	8	2,465,106.0	728,826.0	2,608.00	6.00	0.00	0	0		
									point9	9	2,465,104.0	728,626.0	2,620.00	6.00	0.00	0	0		
									point10	10	2,465,102.0	728,426.0	2,620.00	6.00	0.00	0	0		
									point11	11	2,465,101.0	728,298.9	2,620.00	6.00					
Retaining Wall 4	W	0.00	99.99	0.00				0.00	point12	12	2,465,471.0	728,305.0	2,620.00	3.00	0.00	0	0		
									point13	13	2,465,621.0	728,301.0	2,620.00	3.00	0.00	0	0		
									point14	14	2,465,653.0	728,329.0	2,620.00	3.00					
Future Retaining Wall	W	0.00	99.99	0.00				0.00	point15	15	2,465,320.0	728,315.0	0.00	0.00	0.00	0	0		
									point16	16	2,465,278.0	728,504.0	0.00	0.00	0.00	0	0		
									point17	17	2,465,264.0	728,703.0	0.00	0.00	0.00	0	0		
									point18	18	2,465,254.0	728,872.0	0.00	0.00					
Barrier8	W	0.00	99.99	0.00				0.00	point25	25	2,465,225.0	728,974.2	2,608.00	6.00	0.00	0	0		
									point26	26	2,465,226.0	729,066.4	2,608.00	6.00					
Barrier12	W	0.00	99.99	0.00				0.00	point34	34	2,465,101.0	728,298.9	2,620.00	6.00	0.00	0	0		
									point35	35	2,464,983.2	728,297.7	2,620.00	6.00	0.00	0	0		
									point36	36	2,464,910.0	728,297.7	2,620.00	6.00	0.00	0	0		
									point37	37	2,464,828.2	728,300.1	2,620.00	6.00					
Barrier13	W	0.00	99.99	0.00				0.00	point38	38	2,465,072.0	727,826.6	2,620.00	4.00	0.00	0	0		
									point39	39	2,465,072.0	727,750.8	2,620.00	4.00	0.00	0	0		
									point40	40	2,465,074.8	727,672.3	2,620.00	4.00	0.00	0	0		
									point41	41	2,465,080.2	727,585.8	2,620.00	4.00	0.00	0	0		
									point42	42	2,465,074.8	727,493.7	2,620.00	4.00	0.00	0	0		
									point43	43	2,465,080.2	727,423.3	2,620.00	4.00	0.00	0	0		
									point44	44	2,465,077.5	727,352.9	2,620.00	4.00	0.00	0	0		
									point45	45	2,465,077.5	727,263.6	2,620.00	4.00					

C138C139

AXIOM POINTS
Kari Frederick

15 October 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 1
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
147a	1	1	0.0	60.7	66	60.7	10	----	60.7	0.0	8	-8.0
149	3	1	0.0	61.2	66	61.2	10	----	61.2	0.0	8	-8.0
150	4	1	0.0	61.6	66	61.6	10	----	61.6	0.0	8	-8.0
151	5	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
152	8	1	0.0	66.7	66	66.7	10	Snd Lvl	66.7	0.0	8	-8.0
153	9	1	0.0	67.3	66	67.3	10	Snd Lvl	67.3	0.0	8	-8.0
155	10	1	0.0	65.6	66	65.6	10	----	65.6	0.0	8	-8.0
156	11	1	0.0	65.0	66	65.0	10	----	65.0	0.0	8	-8.0
154	12	1	0.0	59.5	66	59.5	10	----	59.5	0.0	8	-8.0
157	14	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
159	15	1	0.0	64.4	66	64.4	10	----	64.4	0.0	8	-8.0
160	16	1	0.0	64.2	66	64.2	10	----	64.2	0.0	8	-8.0
161	17	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
158	18	1	0.0	64.8	66	64.8	10	----	64.8	0.0	8	-8.0
162	23	1	0.0	59.6	66	59.6	10	----	59.6	0.0	8	-8.0
163	34	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
164	39	1	0.0	65.4	66	65.4	10	----	65.4	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	17	0.0	0.0	0.0
All Impacted	4	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

AXIOM POINTS 15 October 2016
Kari Frederick TNM 2.5

INPUT: ROADWAYS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 1

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)			Flow Control			Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
20_26 Westbnd- Eagle to Locust Grov	12.0	point1	1	2,465,024.2	728,238.2	2,620.00				Average	
		point2	2	2,464,024.5	728,219.8	2,618.00				Average	
		point3	3	2,463,024.5	728,217.4	2,616.00				Average	
		point4	4	2,462,024.5	728,217.5	2,612.00				Average	
		point5	5	2,461,024.5	728,228.9	2,610.00				Average	
		point6	6	2,460,024.5	728,237.8	2,606.00				Average	
		point190	190	2,459,881.8	728,238.5	2,605.71					
Eagle Rd SB 1	12.0	point56	56	2,465,058.5	729,600.7	2,608.00				Average	
		point57	57	2,465,040.2	728,600.9	2,610.00				Average	
		point241	241	2,465,041.5	728,389.3	2,615.00					
Eagle Rd SB N	12.0	point59	59	2,465,072.8	729,594.7	2,608.00				Average	
		point60	60	2,465,054.5	728,594.9	2,610.00				Average	
		point242	242	2,465,055.5	728,384.1	2,615.00					
Eagle RD NB 1	12.0	point62	62	2,465,145.2	726,907.5	2,608.00				Average	
		point238	238	2,465,132.8	727,156.1	2,608.50				Average	
		point239	239	2,465,120.5	727,404.7	2,609.00				Average	
		point240	240	2,465,108.0	727,653.2	2,609.50				Average	
		point63	63	2,465,095.5	727,901.9	2,618.00				Average	
		point249	249	2,465,096.0	728,113.5	2,618.25				Average	
		point255	255	2,465,096.2	728,184.0	2,618.33					
Eagle Rd NB 2	12.0	point65	65	2,465,122.2	726,908.4	2,608.00				Average	
		point235	235	2,465,111.8	727,158.1	2,608.50				Average	
		point236	236	2,465,101.0	727,407.9	2,609.00				Average	
		point237	237	2,465,090.5	727,657.6	2,620.00				Average	
		point66	66	2,465,080.0	727,907.4	2,620.00				Average	

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		point252	252	2,465,080.8	728,048.0	2,620.00				Average	
		point253	253	2,465,081.5	728,188.6	2,620.00					
20_26 Eastbound-Locust Grove to Eagle	12.0	point200	200	2,459,572.5	728,219.4	2,610.00				Average	
		point197	197	2,459,822.5	728,216.7	2,611.50				Average	
		point198	198	2,460,072.5	728,214.0	2,613.00				Average	
		point199	199	2,460,322.5	728,211.3	2,614.50				Average	
		point50	50	2,460,572.5	728,208.6	2,616.00				Average	
		point51	51	2,461,572.2	728,198.9	2,618.00				Average	
		point52	52	2,462,572.2	728,191.8	2,620.00				Average	
		point54	54	2,465,024.2	728,226.0	2,622.00					
WB Chinden Left Turn 1	12.0	point205	205	2,466,132.0	728,239.0	2,620.00				Average	
		point206	206	2,465,832.0	728,231.0	2,620.00				Average	
		point207	207	2,465,532.0	728,235.0	2,620.00				Average	
		point208	208	2,465,243.0	728,239.0	2,620.00					
WB Chinden 1	12.0	point209	209	2,466,132.0	728,251.0	2,620.00				Average	
		point210	210	2,465,832.0	728,255.0	2,620.00				Average	
		point211	211	2,465,232.0	728,263.0	2,620.00					
WB Chinden 2	12.0	point212	212	2,466,132.0	728,239.0	2,620.00				Average	
		point213	213	2,465,832.0	728,243.0	2,620.00				Average	
		point214	214	2,465,232.0	728,251.0	2,620.00					
EB Chinden 1	12.0	point215	215	2,465,099.0	728,197.0	2,620.00				Average	
		point216	216	2,465,999.0	728,185.0	2,620.00				Average	
		point217	217	2,466,131.0	728,183.0	2,620.00					
EB Chinden 2	12.0	point218	218	2,465,099.0	728,209.0	2,620.00				Average	
		point219	219	2,465,999.0	728,197.0	2,620.00				Average	
		point220	220	2,466,131.0	728,195.0	2,620.00					
EB Chinden Right Turn	12.0	point221	221	2,464,199.0	728,197.0	2,620.00				Average	
		point222	222	2,464,499.0	728,191.0	2,620.00				Average	
		point223	223	2,464,799.0	728,186.0	2,620.00				Average	
		point224	224	2,464,899.0	728,182.0	2,620.00					
WB Chinden Right Turn 1	12.0	point225	225	2,466,131.0	728,261.0	2,620.00				Average	
		point226	226	2,465,835.0	728,280.0	2,620.00				Average	
		point227	227	2,465,535.0	728,286.0	2,620.00				Average	
		point228	228	2,465,293.0	728,290.0	2,620.00					
Eagle Rd SB South	12.0	point250	250	2,465,041.5	728,389.3	2,615.00				Average	
		point229	229	2,465,042.5	728,177.8	2,620.00				Average	
		point230	230	2,465,045.0	727,754.6	2,620.00				Average	
		point231	231	2,465,047.5	727,331.5	2,620.00				Average	

		point58	58	2,465,049.8	726,908.4	2,620.00					
Eagle Rd SB S	12.0	point251	251	2,465,055.5	728,384.1	2,615.00				Average	
		point232	232	2,465,056.8	728,173.2	2,620.00				Average	
		point233	233	2,465,059.0	727,751.6	2,620.00				Average	
		point234	234	2,465,061.5	727,330.0	2,620.00				Average	
		point61	61	2,465,063.8	726,908.4	2,620.00					
Eagle Rd NB 2-N	12.0	point254	254	2,465,081.5	728,188.6	2,620.00				Average	
		point243	243	2,465,082.2	728,329.2	2,620.00				Average	
		point244	244	2,465,084.5	728,751.0	2,620.00				Average	
		point245	245	2,465,086.8	729,172.9	2,620.00				Average	
		point67	67	2,465,089.0	729,594.7	2,620.00					
Eagle RD NB N	12.0	point257	257	2,465,096.2	728,184.0	2,618.33				Average	
		point256	256	2,465,096.5	728,254.6	2,618.42				Average	
		point246	246	2,465,096.8	728,325.1	2,618.50				Average	
		point247	247	2,465,098.0	728,748.2	2,619.00				Average	
		point248	248	2,465,099.0	729,171.5	2,619.50				Average	
		point64	64	2,465,100.2	729,594.7	2,620.00					

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AXIOM POINTS 15 October 2016
Kari Frederick TNM 2.5

INPUT: BARRIERS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 1

Barrier Name	Type	Height Min	Height Max	If Wall $ per Unit Area	If Berm $ per Unit Vol.	Top Width	Run:Rise	Add'tnl $ per Unit Length	Points Name	No.	Coordinates (bottom) X	Y	Z	Height at Point	Segment Seg Ht Perturbs Incre-ment	#Up	#Dn	On Struct?	Important Reflec-tions?
		ft	ft	$/sq ft	$/cu yd	ft	ft:ft	$/ft			ft	ft	ft	ft	ft				
Banbury East	W	6.00	99.99	0.00				0.00	point187	187	2,465,001.2	729,451.0	2,608.00	12.00	0.00	0	0		
									point186	186	2,465,001.2	729,210.0	2,608.00	12.00	0.00	0	0		
									point185	185	2,465,001.2	729,100.0	2,610.00	10.00	0.00	0	0		
									point1	1	2,465,001.2	728,883.4	2,618.00	8.00	0.00	0	0		
									point2	2	2,465,004.2	728,683.4	2,620.00	6.00	0.00	0	0		
									point3	3	2,465,001.5	728,483.5	2,620.00	6.00	0.00	0	0		
									point4	4	2,464,993.8	728,284.3	2,620.00	6.00	0.00	0	0		
									point5	5	2,464,795.2	728,270.2	2,620.00	6.00	0.00	0	0		
									point6	6	2,464,595.2	728,272.0	2,620.00	6.00					
Banbury Middle	W	0.00	99.99	0.00				0.00	point7	7	2,464,395.2	728,276.7	2,620.00	6.00	0.00	0	0		
									point8	8	2,464,195.2	728,280.0	2,620.00	6.00	0.00	0	0		
									point9	9	2,463,995.5	728,273.8	2,620.00	6.00	0.00	0	0		
									point10	10	2,463,795.5	728,276.3	2,620.00	6.00	0.00	0	0		
									point11	11	2,463,595.5	728,280.2	2,618.00	6.00	0.00	0	0		
									point12	12	2,463,395.5	728,283.9	2,618.00	6.00	0.00	0	0		
									point13	13	2,463,195.5	728,279.2	2,618.00	6.00	0.00	0	0		
									point14	14	2,462,995.5	728,277.3	2,618.00	6.00	0.00	0	0		
									point15	15	2,462,795.5	728,277.9	2,618.00	6.00	0.00	0	0		
									point16	16	2,462,415.5	728,280.4	2,618.00	6.00					
Bristol Heights	W	0.00	99.99	0.00				0.00	point77	77	2,464,360.5	728,132.4	2,618.00	6.00	0.00	0	0		
									point78	78	2,464,216.5	728,133.0	2,618.00	6.00	0.00	0	0		
									point79	79	2,464,016.5	728,133.6	2,618.00	6.00	0.00	0	0		
									point80	80	2,463,816.5	728,134.3	2,618.00	6.00	0.00	0	0		
									point81	81	2,463,616.5	728,132.8	2,618.00	6.00	0.00	0	0		
									point82	82	2,463,416.5	728,131.2	2,618.00	6.00	0.00	0	0		
									point83	83	2,463,366.5	728,130.8	2,618.00	6.00	0.00	0	0		
									point84	84	2,463,316.5	728,130.4	2,618.00	6.00	0.00	0	0		
									point85	85	2,463,316.5	727,646.0	2,618.00	4.00					
NE Retaining Wall A	W	0.00	99.99	0.00				0.00	point173	173	2,465,215.0	728,772.0	2,620.00	6.00	0.00	0	0		
									point174	174	2,465,216.0	728,872.0	2,608.00	6.00	0.00	0	0		
									point175	175	2,465,217.0	728,901.0	2,608.00	6.00					
NE Retaining Wall B	W	0.00	99.99	0.00				0.00	point176	176	2,465,215.0	728,974.2	2,608.00	4.00	0.00	0	0		
									point177	177	2,465,216.0	729,066.4	2,608.00	4.00					
North of Walgreens	W	0.00	99.99	0.00				0.00	point178	178	2,465,954.0	728,749.3	2,620.00	6.00	0.00	0	0		
									point179	179	2,465,827.5	728,749.3	2,620.00	6.00	0.00	0	0		

									point180	180	2,465,674.0	728,746.6	2,620.00	6.00	0.00	0	0			
									point181	181	2,465,526.0	728,746.6	2,620.00	6.00	0.00	0	0			
									point182	182	2,465,404.8	728,741.2	2,620.00	6.00	0.00	0	0			
									point183	183	2,465,324.0	728,741.2	2,620.00	6.00	0.00	0	0			
									point184	184	2,465,227.0	728,743.9	2,620.00	6.00						
Bristol Heights Wall	W	0.00	99.99	0.00				0.00	point188	188	2,464,988.8	727,777.3	2,620.00	4.00	0.00	0	0			
									point189	189	2,464,994.2	727,691.1	2,620.00	4.00	0.00	0	0			
									point190	190	2,464,991.5	727,572.6	2,620.00	4.00	0.00	0	0			
									point191	191	2,464,988.8	727,443.4	2,620.00	4.00	0.00	0	0			
									point192	192	2,464,991.5	727,343.8	2,620.00	4.00	0.00	0	0			
									point193	193	2,464,988.8	727,298.0	2,620.00	4.00						

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AXIOM POINTS
Kari Frederick

15 October 2016
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Exist 1

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
20_26 Westbnd- Eagle to Locust Grov	point1	1	678	50	54	50	23	50	8	50	7	50
	point2	2	678	50	54	50	23	50	8	50	7	50
	point3	3	678	50	54	50	23	50	8	50	7	50
	point4	4	678	50	54	50	23	50	8	50	7	50
	point5	5	678	50	54	50	23	50	8	50	7	50
	point6	6	678	50	54	50	23	50	8	50	7	50
	point190	190										
Eagle Rd SB 1	point56	56	688	55	55	55	23	55	8	55	8	55
	point57	57	688	55	55	55	23	55	8	55	8	55
	point241	241										
Eagle Rd SB N	point59	59	688	55	55	55	23	55	8	55	8	55
	point60	60	688	55	55	55	23	55	8	55	8	55
	point242	242										
Eagle RD NB 1	point62	62	1592	55	127	55	54	55	18	55	18	55
	point238	238	1592	55	127	55	54	55	18	55	18	55
	point239	239	1592	55	127	55	54	55	18	55	18	55
	point240	240	1592	55	127	55	54	55	18	55	18	55
	point63	63	1592	55	127	55	54	55	18	55	18	55
	point249	249	1592	55	127	55	54	55	18	55	18	55
	point255	255										
Eagle Rd NB 2	point65	65	1592	55	127	55	54	55	18	55	18	55
	point235	235	1592	55	127	55	54	55	18	55	18	55

	point236	236	1592	55	127	55	54	55	18	55	18	55
	point237	237	1592	55	127	55	54	55	18	55	18	55
	point66	66	1592	55	127	55	54	55	18	55	18	55
	point252	252	1592	55	127	55	54	55	18	55	18	55
	point253	253										
20_26 Eastbound-Locust Grove to Eagle	point200	200	432	50	35	50	15	50	5	50	5	50
	point197	197	432	50	35	50	15	50	5	50	5	50
	point198	198	432	50	35	50	15	50	5	50	5	50
	point199	199	432	50	35	50	15	50	5	50	5	50
	point50	50	432	50	35	50	15	50	5	50	5	50
	point51	51	432	50	35	50	15	50	5	50	5	50
	point52	52	432	50	35	50	15	50	5	50	5	50
	point54	54										
WB Chinden Left Turn 1	point205	205	50	25	1	25	1	25	0	0	0	0
	point206	206	50	25	1	25	1	25	0	0	0	0
	point207	207	50	25	1	25	1	25	0	0	0	0
	point208	208										
WB Chinden 1	point209	209	678	50	54	50	23	50	8	50	7	50
	point210	210	678	50	54	50	23	50	8	50	7	50
	point211	211										
WB Chinden 2	point212	212	678	50	54	50	23	50	8	50	7	50
	point213	213	678	50	54	50	23	50	8	50	7	50
	point214	214										
EB Chinden 1	point215	215	432	50	35	50	14	50	5	50	5	50
	point216	216	432	50	35	50	14	50	5	50	5	50
	point217	217										
EB Chinden 2	point218	218	432	50	35	50	15	50	5	50	5	50
	point219	219	432	50	35	50	15	50	5	50	5	50
	point220	220										
EB Chinden Right Turn	point221	221	131	25	0	0	0	0	0	0	0	0
	point222	222	131	25	0	0	0	0	0	0	0	0
	point223	223	131	25	0	0	0	0	0	0	0	0
	point224	224										
WB Chinden Right Turn 1	point225	225	499	25	0	0	0	0	0	0	0	0
	point226	226	499	25	0	0	0	0	0	0	0	0

	point227	227	499	25	0	0	0	0	0	0	0	0
	point228	228										
Eagle Rd SB South	point250	250	1376	55	109	55	47	55	16	55	16	55
	point229	229	1376	55	109	55	47	55	16	55	16	55
	point230	230	1376	55	109	55	47	55	16	55	16	55
	point231	231	1376	55	109	55	47	55	16	55	16	55
	point58	58										
Eagle Rd SB S	point251	251	584	55	47	55	20	55	6	55	6	55
	point232	232	584	55	47	55	20	55	6	55	6	55
	point233	233	584	55	47	55	20	55	6	55	6	55
	point234	234	584	55	47	55	20	55	6	55	6	55
	point61	61										
Eagle Rd NB 2-N	point254	254	796	55	64	55	27	55	9	55	9	55
	point243	243	796	55	64	55	27	55	9	55	9	55
	point244	244	796	55	64	55	27	55	9	55	9	55
	point245	245	796	55	64	55	27	55	9	55	9	55
	point67	67										
Eagle RD NB N	point257	257	1592	55	127	55	54	55	18	55	18	55
	point256	256	1592	55	127	55	54	55	18	55	18	55
	point246	246	1592	55	127	55	54	55	18	55	18	55
	point247	247	1592	55	127	55	54	55	18	55	18	55
	point248	248	1592	55	127	55	54	55	18	55	18	55
	point64	64										

AXIOM POINTS
Kari Points

15 October 2016
TNM 2.5
Calculated with TNM 2.5

RESULTS: SOUND LEVELS
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Eagle Road No Build
BARRIER DESIGN: INPUT HEIGHTS

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.

ATMOSPHERICS: 68 deg F, 50% RH

Receiver Name	No.	#DUs	Existing LAeq1h	No Barrier LAeq1h Calculated	Crit'n	Increase over existing Calculated	Crit'n Sub'l Inc	Type Impact	With Barrier Calculated LAeq1h	Noise Reduction Calculated	Goal	Calculated minus Goal
			dBA	dBA	dBA	dB	dB		dBA	dB	dB	dB
147a	1	1	0.0	61.8	66	61.8	10	----	61.8	0.0	8	-8.0
149	3	1	0.0	62.2	66	62.2	10	----	62.2	0.0	8	-8.0
150	4	1	0.0	62.5	66	62.5	10	----	62.5	0.0	8	-8.0
151	5	1	0.0	63.4	66	63.4	10	----	63.4	0.0	8	-8.0
152	8	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0
153	9	1	0.0	68.3	66	68.3	10	Snd Lvl	68.3	0.0	8	-8.0
155	10	1	0.0	66.1	66	66.1	10	Snd Lvl	66.1	0.0	8	-8.0
156	11	1	0.0	65.2	66	65.2	10	----	65.2	0.0	8	-8.0
154	12	1	0.0	59.7	66	59.7	10	----	59.7	0.0	8	-8.0
157	14	1	0.0	67.6	66	67.6	10	Snd Lvl	67.6	0.0	8	-8.0
159	15	1	0.0	64.5	66	64.5	10	----	64.5	0.0	8	-8.0
160	16	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
161	17	1	0.0	58.0	66	58.0	10	----	58.0	0.0	8	-8.0
158	18	1	0.0	64.3	66	64.3	10	----	64.3	0.0	8	-8.0
162	23	1	0.0	61.2	66	61.2	10	----	61.2	0.0	8	-8.0
163	34	1	0.0	67.5	66	67.5	10	Snd Lvl	67.5	0.0	8	-8.0
164	39	1	0.0	67.8	66	67.8	10	Snd Lvl	67.8	0.0	8	-8.0

Dwelling Units	# DUs	Noise Reduction Min	Avg	Max
		dB	dB	dB
All Selected	17	0.0	0.0	0.0
All Impacted	6	0.0	0.0	0.0
All that meet NR Goal	0	0.0	0.0	0.0

AXIOM POINTS
Kari Points

15 October 2016
TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes
PROJECT/CONTRACT: 20_26 Corridor Study
RUN: Eagle Road No Build

Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
20_26 Westbnd- Eagle to Locust Grov	point1	1	1217	50	98	50	56	50	14	50	14	50
	point2	2	1217	50	98	50	56	50	14	50	14	50
	point3	3	1217	50	98	50	56	50	14	50	14	50
	point4	4	1217	50	98	50	56	50	14	50	14	50
	point5	5	1217	50	98	50	56	50	14	50	14	50
	point6	6	1217	50	98	50	56	50	14	50	14	50
	point190	190										
Eagle Rd SB 1	point56	56	688	55	55	55	23	55	8	55	8	55
	point57	57	688	55	55	55	23	55	8	55	8	55
	point241	241										
Eagle Rd SB N	point59	59	955	55	76	55	33	55	11	55	11	55
	point60	60	955	55	76	55	33	55	11	55	11	55
	point242	242										
Eagle RD NB 1	point62	62	1592	55	127	55	54	55	18	55	18	55
	point238	238	1592	55	127	55	54	55	18	55	18	55
	point239	239	1592	55	127	55	54	55	18	55	18	55
	point240	240	1592	55	127	55	54	55	18	55	18	55
	point63	63	1592	55	127	55	54	55	18	55	18	55
	point249	249	1592	55	127	55	54	55	18	55	18	55
	point255	255										
Eagle Rd NB 2	point65	65	1592	55	127	55	54	55	18	55	18	55
	point235	235	1592	55	127	55	54	55	18	55	18	55

	point236	236	1592	55	127	55	54	55	18	55	18	55
	point237	237	1592	55	127	55	54	55	18	55	18	55
	point66	66	1592	55	127	55	54	55	18	55	18	55
	point252	252	1592	55	127	55	54	55	18	55	18	55
	point253	253										
20_26 Eastbound-Locust Grove to Eagle	point200	200	950	50	76	50	44	50	11	50	11	50
	point197	197	950	50	76	50	44	50	11	50	11	50
	point198	198	950	50	76	50	44	50	11	50	11	50
	point199	199	950	50	76	50	44	50	11	50	11	50
	point50	50	950	50	76	50	44	50	11	50	11	50
	point51	51	950	50	76	50	44	50	11	50	11	50
	point52	52	950	50	76	50	44	50	11	50	11	50
	point54	54										
WB Chinden Left Turn 1	point205	205	330	25	1	25	1	25	0	0	0	0
	point206	206	330	25	1	25	1	25	0	0	0	0
	point207	207	330	25	1	25	1	25	0	0	0	0
	point208	208										
WB Chinden 1	point209	209	678	50	54	50	23	50	8	50	7	50
	point210	210	678	50	54	50	23	50	8	50	7	50
	point211	211										
WB Chinden 2	point212	212	678	50	54	50	23	50	8	50	7	50
	point213	213	678	50	54	50	23	50	8	50	7	50
	point214	214										
EB Chinden 1	point215	215	432	50	35	50	14	50	5	50	5	50
	point216	216	432	50	35	50	14	50	5	50	5	50
	point217	217										
EB Chinden 2	point218	218	432	50	35	50	15	50	5	50	5	50
	point219	219	432	50	35	50	15	50	5	50	5	50
	point220	220										
EB Chinden Right Turn	point221	221	148	25	0	0	0	0	0	0	0	0
	point222	222	148	25	0	0	0	0	0	0	0	0
	point223	223	148	25	0	0	0	0	0	0	0	0
	point224	224										
WB Chinden Right Turn 1	point225	225	735	25	0	0	0	0	0	0	0	0
	point226	226	735	25	0	0	0	0	0	0	0	0

	point227	227	735	25	0	0	0	0	0	0	0	0
	point228	228										
Eagle Rd SB South	point250	250	824	55	66	55	28	55	10	55	10	55
	point229	229	824	55	66	55	28	55	10	55	10	55
	point230	230	824	55	66	55	28	55	10	55	10	55
	point231	231	824	55	66	55	28	55	10	55	10	55
	point58	58										
Eagle Rd SB S	point251	251	824	55	66	55	28	55	10	55	10	55
	point232	232	824	55	66	55	28	55	10	55	10	55
	point233	233	824	55	66	55	28	55	10	55	10	55
	point234	234	824	55	66	55	28	55	10	55	10	55
	point61	61										
Eagle Rd NB 2-N	point254	254	1306	55	104	55	45	55	64	55	15	55
	point243	243	1306	55	104	55	45	55	15	55	15	55
	point244	244	1306	55	104	55	45	55	15	55	15	55
	point245	245	1306	55	104	55	45	55	15	55	15	55
	point67	67										
Eagle RD NB N	point257	257	1592	55	127	55	54	55	18	55	18	55
	point256	256	1592	55	127	55	54	55	18	55	18	55
	point246	246	1592	55	127	55	54	55	18	55	18	55
	point247	247	1592	55	127	55	54	55	18	55	18	55
	point248	248	1592	55	127	55	54	55	18	55	18	55
	point64	64										

C151

APPENDIX D: INFORMATION FOR LOCAL OFFICIALS

INFORMATION for LOCAL OFFICIALS

In Accordance with 23 CFR 772.17

The Federal Highway Administration (FHWA) has established Noise Abatement Criteria guidelines (absolute noise impact) for several categories of land use activities; which include the following Leq noise levels excerpted from 23 CFR 772:

Category A	Leq = 57 dBA	Lands on which "serenity and quiet are of extraordinary significance and serve an important public need and…"
Category B	Leq = 67 dBA	Residential
Category C	Leq = 67 dBA	Sports areas, amphitheaters, auditoriums, public or nonprofit institutions, parks, campgrounds, section 4(f) sites, cemeteries, day care centers, recording studios, libraries, etc.
Category D	Leq = 52 dBA	Interior public or non-profit institutions, auditoriums, daycare centers, recording studios, libraries, etc.
Category E	Leq = 72 dBA	Hotels, offices, restaurants/bars, developed lands, properties or activities not included in
Category F	Leq = --	Agricultural, airports, emergency services, logging, mining, manufacturing, rail yards, utilities, etc.
Category G	Leq = -- dBA	Undeveloped lands that are not permitted

Noise abatement measures recommended for consideration by the local jurisdiction in the project area:

1) Requiring developers to implement suitable noise abatement measures in those cases where adequate setbacks or buffer zones are not maintained (e.g., berms, sound walls, insulation, double/triple pane windows, etc.);
2) Requiring acceptable setbacks or buffer zones for new residential units or developments (i.e.; Table 1 indicates 250' between Eagle Road to Meridian, 200' between Meridian Road to Midland and 400' between Midland to I-84) of centerline would be an appropriate distance to construct residences adjacent to 20/26 in order not to approach or exceed FHWA noise abatement guidelines);
3) Maintaining appropriate zoning for non-sensitive land uses adjacent to the route;
4) Lowering or maintaining (not raising) the current posted speed limits.
5) Include a statement on any development/building permit indicating that the developer will be responsible for either avoiding traffic noise impacts or providing any associated abatement.

Type II Project Eligibility [23 CFR 772.15(b)]

For Type II projects, noise abatement measures will only be approved for projects that were approved before November 28, 1995, or are proposed along lands where land development or substantial construction predated the existence of any highway. The granting of a building permit, filing of a plat plan, or a similar action must have occurred prior to right-of-way acquisition or construction approval for the original highway. Noise abatement measures will not

be approved at locations where such measures were previously determined not to be reasonable and feasible for a Type I project.

Table 1 Projected Design Year (2040) DHV Leq Noise Levels (dBA)	
Distance to US 20/26 Design year Alt. Centerline in Feet	**Noise Level (dBA)**
Eagle Road to Meridian	
50	76.3
75	73.5
100	71.4
125	70.1
150	68.7
200	66.5
250	64.5
300	62.9
400	60.8
800	55.9
Meridian to Midland	
50	70.8
75	70.0
100	68.6
125	67.4
150	66.3
200	64.7
250	63.1
300	61.7
400	59.7
800	54.8
Midland to I-84	
50	68.8
75	68.3
100	67.7
125	67.0
150	66.2
200	65.5
250	64.9
300	63.5
400	63.0
800	57.7
Shading indicates that noise levels would exceed the FHWA NAC and/or the criteria stated in the ITD Noise Policy.	

Date of Public Knowledge
The approval date of the environmental determination (i.e., CE, FONSI, ROD); after this date FHWA & ITD are no longer responsible for providing noise abatement for new development adjacent to the highway project that is not already permitted.

The date of public knowledge for this project is: _____.

Cover Letter to Local Officials
[The following is a sample letter of notification to local officials concerning possible future development noise impacts from an ITD project. Notification shall be sent to local officials by the District no later than two weeks after approval date of the CE, FONSI, or ROD by FHWA.]

December 25, 2015

Ada and Canyon Counties, and the Cities of Boise, Meridian, Eagle, Star, Nampa, and Caldwell
Address
City, Idaho 83000

RE: US 20/26 Corridor Preservation Study
Key# 07826

Dear Mr. Smith,

The Idaho Transportation Department (ITD) is proposing to construct an additional lane on each side of US 20/26 from I-84 to the Eagle Road intersection (milepost 25 to milepost 40.26) in Ada and Canyon counties. This road widening project would result in traffic noise impacts as depicted on the attached table of transects, completed during the traffic noise analysis for this project. This information depicts the noise levels anticipated to be produced by the projected design year traffic volumes (year 2040).

Any vacant properties along this section of US 20/26 that may be developed over the next several years, and construction close to the travel lanes, may result in a volume of noise sufficient to exceed Federal traffic noise abatement criteria. In planning for future development along the US 20/26 project limits, please note that traffic noise may become a factor and that any building or development plans should take this issue into consideration. After the date of public knowledge (the approval date of the environmental determination) the Federal Highway Administration and ITD will no longer be responsible for providing noise abatement for new development adjacent to the highway project that is not already permitted.

The date of public knowledge for this project is: _____.

This notification of future noise impacts and the possibility of Federal funding for noise abatement are issued in accordance with 23 Code of Federal Regulations 772.15.

Sincerely,

Attachment
CC: County/City Planning Department/ Local Metropolitan Planning Organization
City Mayor
FHWA and ITD Environmental Managers

APPENDIX E: ITD DECISION CHECKLISTS

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) Commercial: 5,6,108,114,120,128,101 Residential: 4,11,12,26-27,31-33,37,41-42,44-45,47,51,53-57,59,62-63,65-68,70-72,74,77-80,83,84,87,90,98,112,121,122,133,135,136

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☐	☒
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☐	☒

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
		$	dBA	

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☒ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

- ☐ Cost per benefitted receptor is excessive
- ☐ Abatement measures do not meet the design goal
- ☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

- ☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)
- ☐ Traffic noise impacts are a result of development occurring after the highway was constructed
- ☒ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective
- ☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)
- ☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)
- ☐ There is a positive change in noise levels between design year build and no-build alternatives
- ☒ Local ordinances allow development along the highways without consideration for noise abatement
- ☐ Project traffic noise is not the dominate noise source
- ☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
Greg Vitley	Greg Vitley	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 10 Lakey's #2 Mobile Home Park

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☒	☐

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
Barrier	Lakey's #2 Mobile Home Park	$142,680	5 dBA	6

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

☐ Cost per benefitted receptor is excessive

☐ Abatement measures do not meet the design goal

☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)

☐ Traffic noise impacts are a result of development occurring after the highway was constructed

☐ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective

☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)

☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)

☐ There is a positive change in noise levels between design year build and no-build alternatives

☐ Local ordinances allow development along the highways without consideration for noise abatement

☐ Project traffic noise is not the dominate noise source

☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
Greg Vitley	Greg Vitley	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 16, 20 Ward West

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☐	☒

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
		$	dBA	

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

☒ Cost per benefitted receptor is excessive

☐ Abatement measures do not meet the design goal

☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)

☒ Traffic noise impacts are a result of development occurring after the highway was constructed

☒ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective

☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)

☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)

☐ There is a positive change in noise levels between design year build and no-build alternatives

☒ Local ordinances allow development along the highways without consideration for noise abatement

☐ Project traffic noise is not the dominate noise source

☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
Greg Vitley	Greg Vitley	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 25 Ward East

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☐	☒

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
		$	dBA	

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

☒ Cost per benefitted receptor is excessive

☐ Abatement measures do not meet the design goal

☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)

☒ Traffic noise impacts are a result of development occurring after the highway was constructed

☒ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective

☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)

☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)

☐ There is a positive change in noise levels between design year build and no-build alternatives

☒ Local ordinances allow development along the highways without consideration for noise abatement

☐ Project traffic noise is not the dominate noise source

☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
Greg Vitley	Greg Vitley	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 99, 100, 103 Silverleaf

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☒	☐

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
Barrier	Silverleaf	$328,802	5 dBA	14

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

- ☐ Cost per benefitted receptor is excessive
- ☐ Abatement measures do not meet the design goal
- ☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

- ☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)
- ☐ Traffic noise impacts are a result of development occurring after the highway was constructed
- ☐ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective
- ☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)
- ☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)
- ☐ There is a positive change in noise levels between design year build and no-build alternatives
- ☐ Local ordinances allow development along the highways without consideration for noise abatement
- ☐ Project traffic noise is not the dominate noise source
- ☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
	Greg [illegible]	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 104, 105 Challenger School

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☐	☒

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
		$	dBA	

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

☒ Cost per benefitted receptor is excessive

☐ Abatement measures do not meet the design goal

☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)

☒ Traffic noise impacts are a result of development occurring after the highway was constructed

☒ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective

☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)

☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)

☐ There is a positive change in noise levels between design year build and no-build alternatives

☐ Local ordinances allow development along the highways without consideration for noise abatement

☐ Project traffic noise is not the dominate noise source

☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
	[signature]	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 125 Westborough

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☒	☐

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
Barrier	Westborough	$487,084	5 dBA	28

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

- ☐ Cost per benefitted receptor is excessive
- ☐ Abatement measures do not meet the design goal
- ☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

- ☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)
- ☐ Traffic noise impacts are a result of development occurring after the highway was constructed
- ☐ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective
- ☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)
- ☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)
- ☐ There is a positive change in noise levels between design year build and no-build alternatives
- ☐ Local ordinances allow development along the highways without consideration for noise abatement
- ☐ Project traffic noise is not the dominate noise source
- ☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
	[signature]	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 137, 138, 141 Bristol Heights West

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☒	☐

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
Barrier	Bristal Heights West	$268,192	5 dBA	14

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

- ☐ Cost per benefitted receptor is excessive
- ☐ Abatement measures do not meet the design goal
- ☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

- ☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)
- ☐ Traffic noise impacts are a result of development occurring after the highway was constructed
- ☐ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective
- ☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)
- ☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)
- ☐ There is a positive change in noise levels between design year build and no-build alternatives
- ☐ Local ordinances allow development along the highways without consideration for noise abatement
- ☐ Project traffic noise is not the dominate noise source
- ☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
Greg Vitley	Greg Vitley	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 141a Bristol Heights Central

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☒	☐

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
Barrier	Bristol Heights Central	$112.230	5 dBA	5

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

- ☐ Cost per benefitted receptor is excessive
- ☐ Abatement measures do not meet the design goal
- ☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

- ☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)
- ☐ Traffic noise impacts are a result of development occurring after the highway was constructed
- ☐ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective
- ☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)
- ☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)
- ☐ There is a positive change in noise levels between design year build and no-build alternatives
- ☐ Local ordinances allow development along the highways without consideration for noise abatement
- ☐ Project traffic noise is not the dominate noise source
- ☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
Greg Vitley	Greg Vitley	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 142, 144 Bristol Heights East

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☒	☐

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
Barrier	Bristol Heights East	$154,773	5 dBA	10

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

- ☐ Cost per benefitted receptor is excessive
- ☐ Abatement measures do not meet the design goal
- ☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

- ☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)
- ☐ Traffic noise impacts are a result of development occurring after the highway was constructed
- ☐ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective
- ☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)
- ☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)
- ☐ There is a positive change in noise levels between design year build and no-build alternatives
- ☐ Local ordinances allow development along the highways without consideration for noise abatement
- ☐ Project traffic noise is not the dominate noise source
- ☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
Greg Vitley	Greg Vitley	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 139, 140, 143, 145 Banbury Central

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☐	☒

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
		$	dBA	

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

☒ Cost per benefitted receptor is excessive

☐ Abatement measures do not meet the design goal

☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)

☐ Traffic noise impacts are a result of development occurring after the highway was constructed

☒ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective

☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)

☒ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)

☐ There is a positive change in noise levels between design year build and no-build alternatives

☒ Local ordinances allow development along the highways without consideration for noise abatement

☐ Project traffic noise is not the dominate noise source

☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
Greg Vitley	Greg Vitley	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 147 Banbury East

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☒ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☐	☒

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
		$	dBA	

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

☒ Cost per benefitted receptor is excessive

☐ Abatement measures do not meet the design goal

☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)

☒ Traffic noise impacts are a result of development occurring after the highway was constructed

☐ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective

☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)

☒ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)

☐ There is a positive change in noise levels between design year build and no-build alternatives

☒ Local ordinances allow development along the highways without consideration for noise abatement

☐ Project traffic noise is not the dominate noise source

☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
Greg Vitley	[signature]	8-25-16

Noise Abatement Decision Checklist

Idaho Transportation Department

ITD 1056 (Rev. 05-11)
itd.idaho.gov

District or Sponsor Decision regarding the following receptor(s) 163,164 Bristol Heights Eagle Road

	Yes	No
A traffic noise impact has been identified [23 CFR 772.15(a)(1)] ☐ Relative ☐ Absolute	☒	☐
The noise abatement measures will effectively reduce the traffic noise impact [23 CFR 772.15(a)(2)]	☒	☐
The impacts for which the mitigation is proposed actually result from the Administration action [23 CFR 771.105(d)(1)]	☒	☐
The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures [23 CFR 771.105(d)(2)] and [23 CFR 772.13(d)(2)	☒	☐

If the answer to any of the above is No, go to Section 2.

Section 1 - Intention to Install Noise Abatement Measures

Based on the studies so far, the state/local jurisdiction intends to install noise abatement with the following preliminary design. If these conditions substantially change during final design, the abatement measures may not be provided. A final decision on abatement measure(s) will be made upon completion of the project design and the public involvement process.

Type of Noise Abatement	Location	Cost	Noise Level Reduction	Number of Residents Benefitted
Barrier	Bristol Heights Eagle Road	$139,351	5 dBA	7

Section 2 - Noise Abatement Measures Not Intended to be Installed

Based on the studies so far, the state/local jurisdiction does not intend to install noise abatement measures because

☐ An effective barrier is not feasible

or

For the following reason(s)

Required Reasonableness Considerations

The measures are determined to be unreasonable because of the following reason(s).

☐ Cost per benefitted receptor is excessive

☐ Abatement measures do not meet the design goal

☐ Abatement measures are not desired

Optional Reasonableness Considerations

No single optional factor can be used to determine reasonableness. The assessment results of the factors below are used to increase the cost per benefitted receptor.

☐ Abatement measures conflict with the purpose of the project (re.: non-barrier measures)

☐ Traffic noise impacts are a result of development occurring after the highway was constructed

☐ Traffic noise impacts resulted from development occurring after the 1976 NAC became effective

☐ Receptors are considered noise tolerant (i.e., commercial, highway business, industrial, etc.)

☐ Exposure to higher absolute traffic noise levels is not a noticeable change (<3dBA)

☐ There is a positive change in noise levels between design year build and no-build alternatives

☐ Local ordinances allow development along the highways without consideration for noise abatement

☐ Project traffic noise is not the dominate noise source

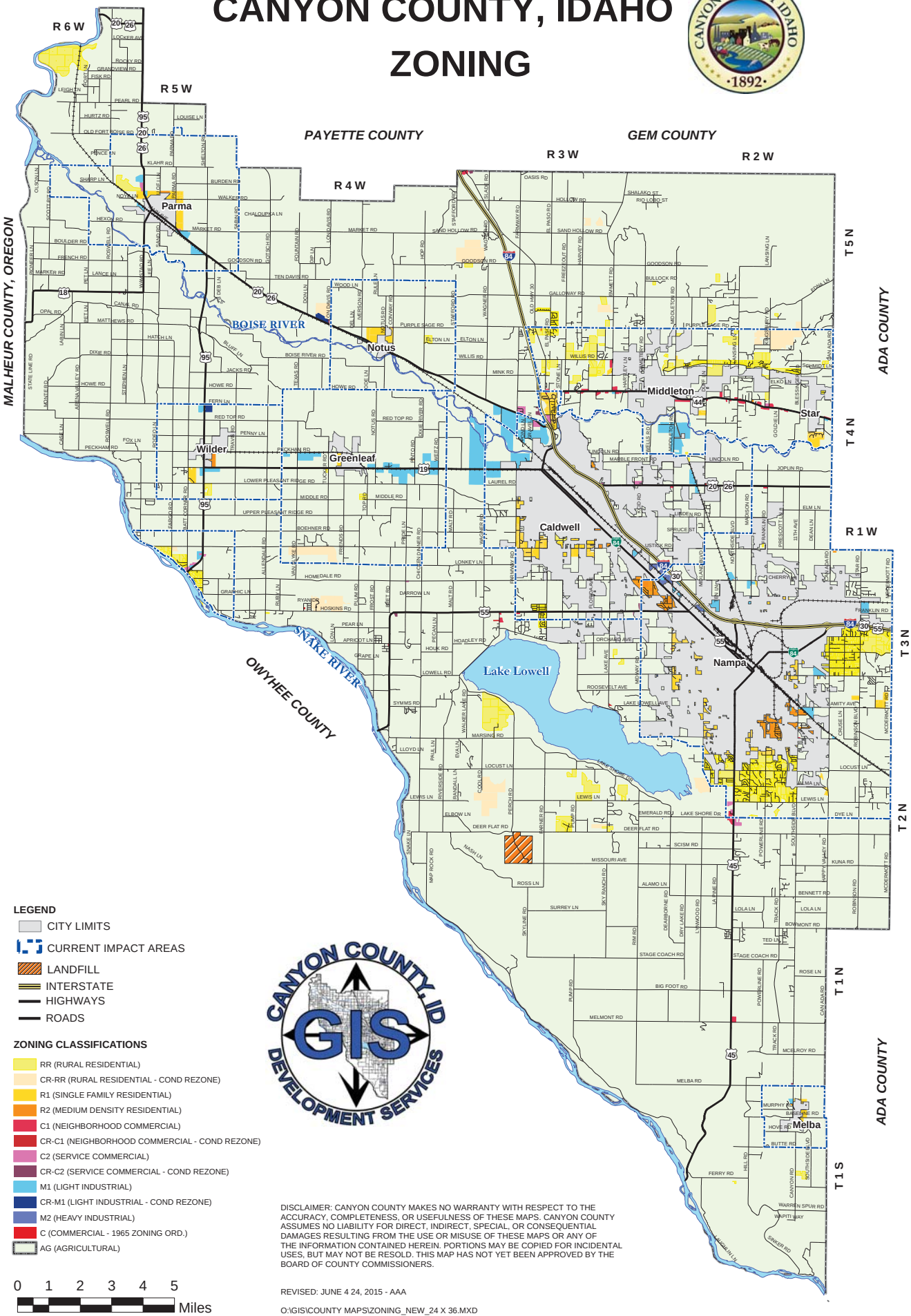
☐ Other (explain)

Prepared By

District/Sponsor Environmental Planner/Engineer's Printed Name	District/Sponsor Environmental Planner/Engineer's Signature	Date
GREG VITLEY	[signature]	11-14-16

APPENDIX F: ZONING MAPS

CANYON COUNTY, IDAHO
ZONING



LEGEND

- CITY LIMITS
- CURRENT IMPACT AREAS
- LANDFILL
- INTERSTATE
- HIGHWAYS
- ROADS

ZONING CLASSIFICATIONS

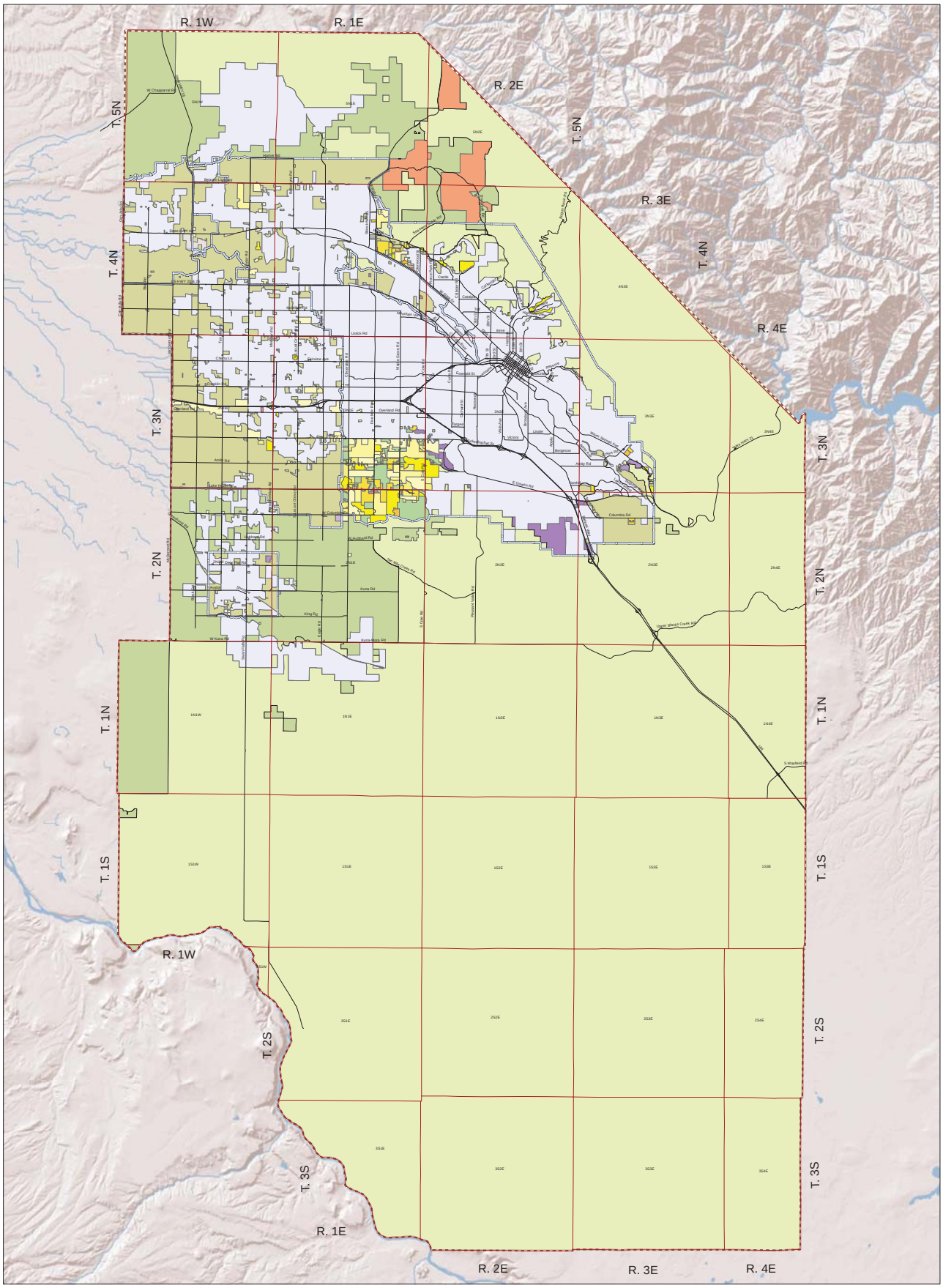
- RR (RURAL RESIDENTIAL)
- CR-RR (RURAL RESIDENTIAL - COND REZONE)
- R1 (SINGLE FAMILY RESIDENTIAL)
- R2 (MEDIUM DENSITY RESIDENTIAL)
- C1 (NEIGHBORHOOD COMMERCIAL)
- CR-C1 (NEIGHBORHOOD COMMERCIAL - COND REZONE)
- C2 (SERVICE COMMERCIAL)
- CR-C2 (SERVICE COMMERCIAL - COND REZONE)
- M1 (LIGHT INDUSTRIAL)
- CR-M1 (LIGHT INDUSTRIAL - COND REZONE)
- M2 (HEAVY INDUSTRIAL)
- C (COMMERCIAL - 1965 ZONING ORD.)
- AG (AGRICULTURAL)

0 1 2 3 4 5 Miles

DISCLAIMER: CANYON COUNTY MAKES NO WARRANTY WITH RESPECT TO THE ACCURACY, COMPLETENESS, OR USEFULNESS OF THESE MAPS. CANYON COUNTY ASSUMES NO LIABILITY FOR DIRECT, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR MISUSE OF THESE MAPS OR ANY OF THE INFORMATION CONTAINED HEREIN. PORTIONS MAY BE COPIED FOR INCIDENTAL USES, BUT MAY NOT BE RESOLD. THIS MAP HAS NOT YET BEEN APPROVED BY THE BOARD OF COUNTY COMMISSIONERS.

REVISED: JUNE 4 24, 2015 - AAA

O:\GIS\COUNTY MAPS\ZONING_NEW_24 X 36.MXD



Legend

- Township Range Lines
- Major Streets
- Ada County Line
- Impact Areas
- Incorporated Areas
- Ada County, C1
- Ada County, C2
- Ada County, LO
- Ada County, M1
- Ada County, M2
- Ada County, M3
- Ada County, PC
- Ada County, R1
- Ada County, R1M
- Ada County, R2
- Ada County, R4
- Ada County, R6
- Ada County, R8
- Ada County, R8M
- Ada County, R12
- Ada County, R20
- Ada County, RP
- Ada County, RR
- Ada County, RSW
- Ada County, RUT
- Ada County, TI

Ada County

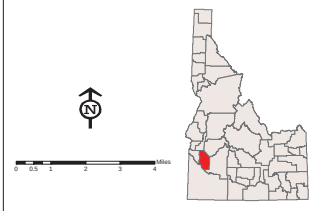
Base Zoning Districts

July 21, 2011

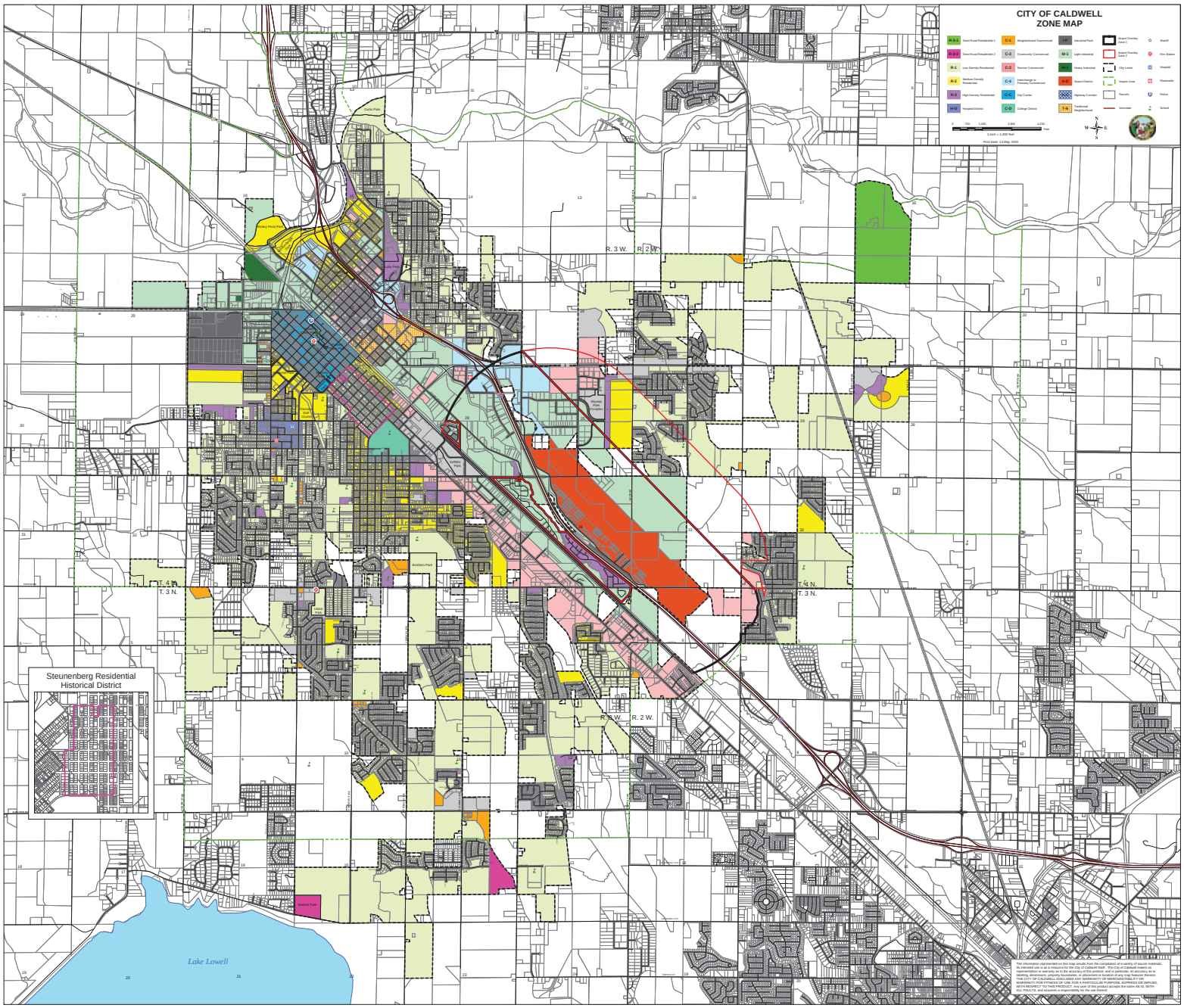
Ada County Development Services
200 West Front Street
Boise, Idaho
www.adaweb.net

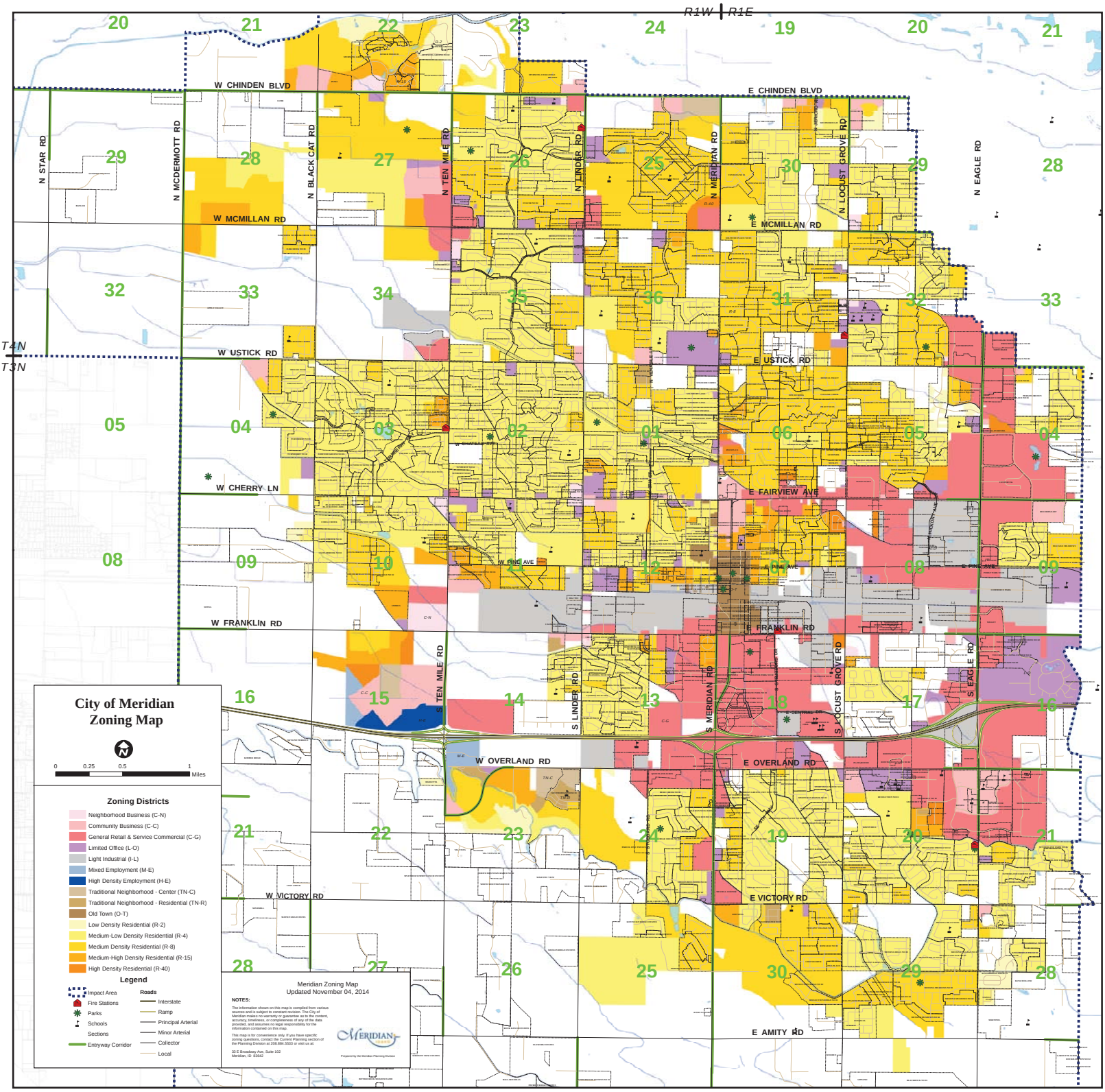
This map is made in part from data prepared or compiled by Ada County. Ada County shall not be liable for inaccuracies or misuse of this map or data.

State of Idaho



Locator Map


CITY OF CALDWELL
ZONE MAP
R-S-1 Semi-Rural Residential 1
R-S-2 Semi-Rural Residential 2
R-1 Low Density Residential
R-2 Medium Density Residential
R-3 High Density Residential
R-D Hospital District
C-1 Neighborhood Commercial
C-2 Community Commercial
C-3 Service Commercial
C-4 Interchange or Freeway Commercial
C-C City Center
C-D College District
I-P Industrial Park
M-1 Light Industrial
M-2 Heavy Industrial
A-O Airport District
Highway Corridor
T-N Traditional Neighborhood
Airport Overlay Zone 1
Airport Overlay Zone 2
City Limits
Impact Area
Parcels
Interstate
Sheriff
Fire Station
Hospital
Penitentiary
Police
School
0 700 1,400 2,800 4,200 Feet
1 inch = 1,400 feet
Print Date: 23 May 2016
N
W
E
S
Steunenberg Residential
Historical District
Lake Lowell
R. 3 W.
R. 2 W.
T. 4 N.
T. 3 N.
Custer Park
Rotary Pond Park
Bradford Park
Blackfoot Park
Wilson Park
Bradford Park
Stevens Park Golden
Lowell Park
Bradford Park
The information represented on this map results from the compilation of a variety of source materials. Its intended use is as a resource for the City of Caldwell Staff. The City of Caldwell makes no representation or warranty as to the accuracy of this product, and in particular, its accuracy as to labeling, dimensions, property boundaries, or placement or location of any map features thereon. THE CITY OF CALDWELL DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR WARRANTY FOR FITNESS OF USE FOR A PARTICULAR PURPOSE, EXPRESS OR IMPLIED, WITH RESPECT TO THIS PRODUCT. Any use of this product accepts the same AS IS, WITH ALL FAULTS, and assumes a responsibility for the use thereof.


City of Meridian
Zoning Map
0 0.25 0.5 1 Miles
Zoning Districts
Neighborhood Business (C-N)
Community Business (C-C)
General Retail & Service Commercial (C-G)
Limited Office (L-O)
Light Industrial (I-L)
Mixed Employment (M-E)
High Density Employment (H-E)
Traditional Neighborhood - Center (TN-C)
Traditional Neighborhood - Residential (TN-R)
Old Town (O-T)
Low Density Residential (R-2)
Medium-Low Density Residential (R-4)
Medium Density Residential (R-8)
Medium-High Density Residential (R-15)
High Density Residential (R-40)
Legend
Impact Area
Fire Stations
Parks
Schools
Sections
Entryway Corridor
Roads
Interstate
Ramp
Principal Arterial
Minor Arterial
Collector
Local
Meridian Zoning Map
Updated November 04, 2014
NOTES:
The information shown on this map is compiled from various sources and is subject to change without notice. The City of Meridian makes no warranty or guarantee as to the content, accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map.
This map is for convenience only. If you have specific zoning questions, contact the Current Planning section of the Planning Division at 208.884.5533 or visit us at:
33 E Broadway Ave, Suite 102
Meridian, ID 83642
Prepared by the Meridian Planning Division
R1W
R1E
T4N
T3N
W CHINDEN BLVD
E CHINDEN BLVD
N STAR RD
N MCDERMOTT RD
N BLACK CAT RD
N TEN MILE RD
N LINDER RD
N MERIDIAN RD
N LOCUST GROVE RD
N EAGLE RD
W MCMILLAN RD
E MCMILLAN RD
W USTICK RD
E USTICK RD
W CHERRY LN
E FAIRVIEW AVE
W PINE AVE
E PINE AVE
W FRANKLIN RD
E FRANKLIN RD
S TEN MILE RD
S LINDER RD
S MERIDIAN RD
S LOCUST GROVE RD
S EAGLE RD
W OVERLAND RD
E OVERLAND RD
W VICTORY RD
E VICTORY RD
E AMITY RD

City of Eagle

Zoning

Map Date:June, 2014
Source Data: April 2014

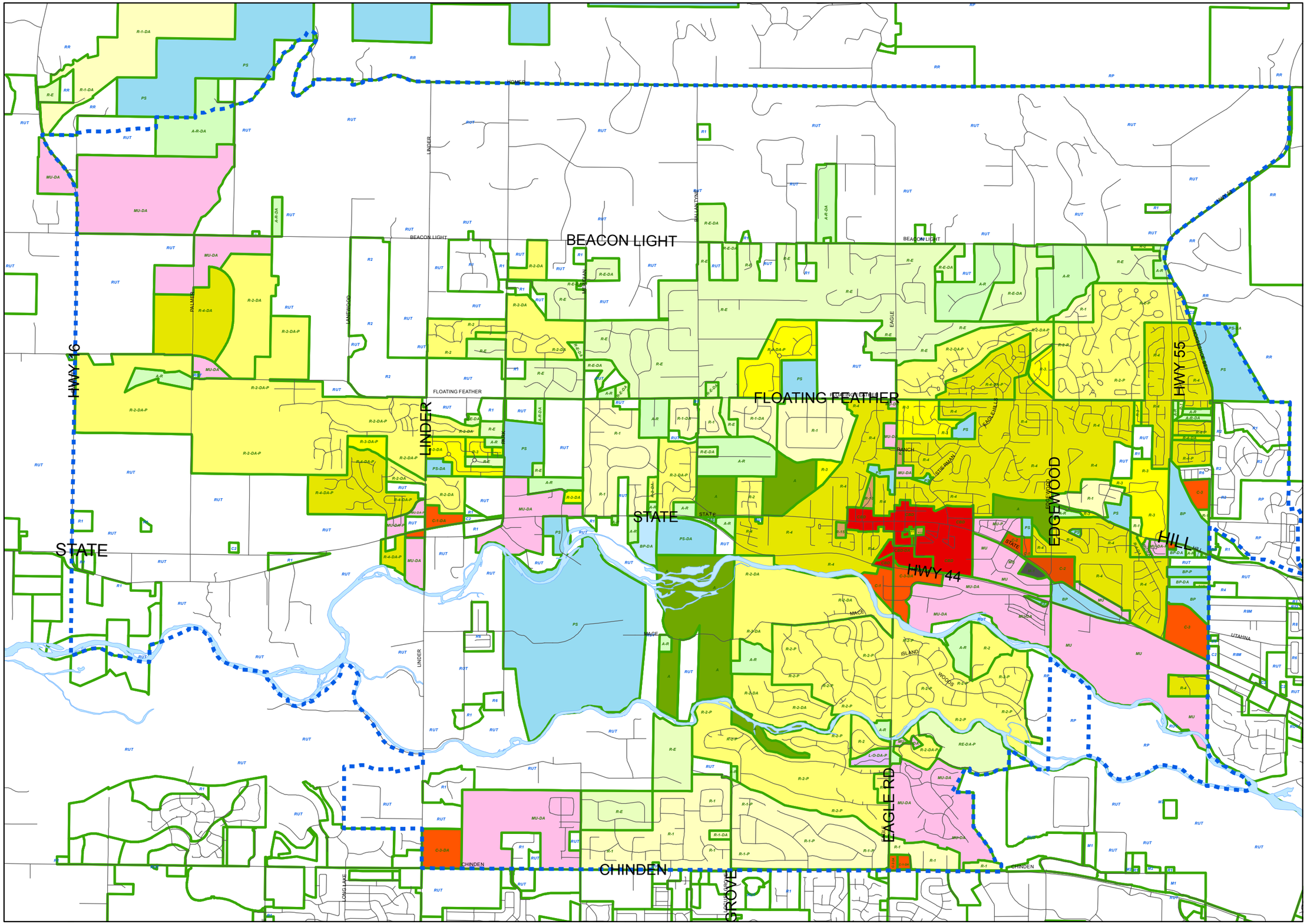
1:36,000

Feet

1,600 0 1,600

N

Zoning
Eagle Impact Area
Water Features



F5

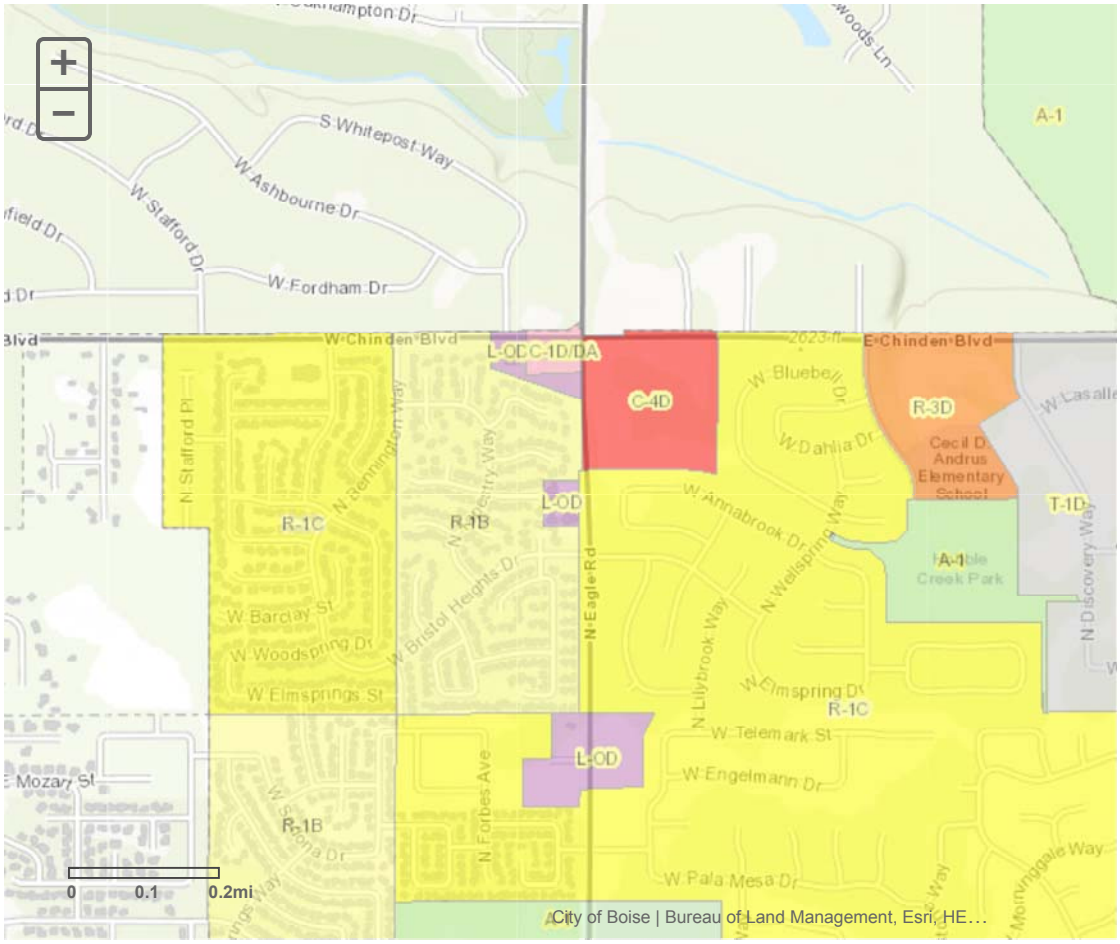
Path: M:\2014 Maps\Zoningmap_sizeB.mxd

Boise Zoning

Zoning for City of Boise.

Locate an address

Switch Basemap



Legend

Boise Zoning Data
Boise Zoning

- Unknown
- A-1
- A-2
- C-1
- C-2
- C-3
- C-4
- C-5
- H-S
- L-O
- M-1
- M-2
- N-O
- PC
- R-1A
- R-1B
- R-1C
- R-1M
- R-2
- R-3
- R-O
- SP-01
- SP-02
- T-1
- T-2
- U

2

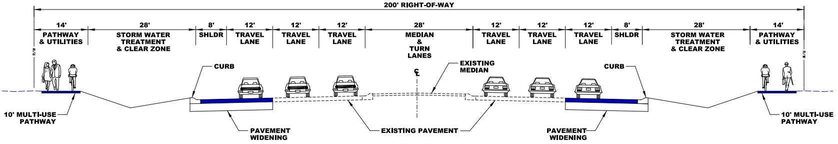
Explorer Online

Map Viewer

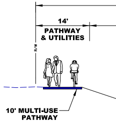
(2,870 views)

APPENDIX G: CONCEPT LAYOUT

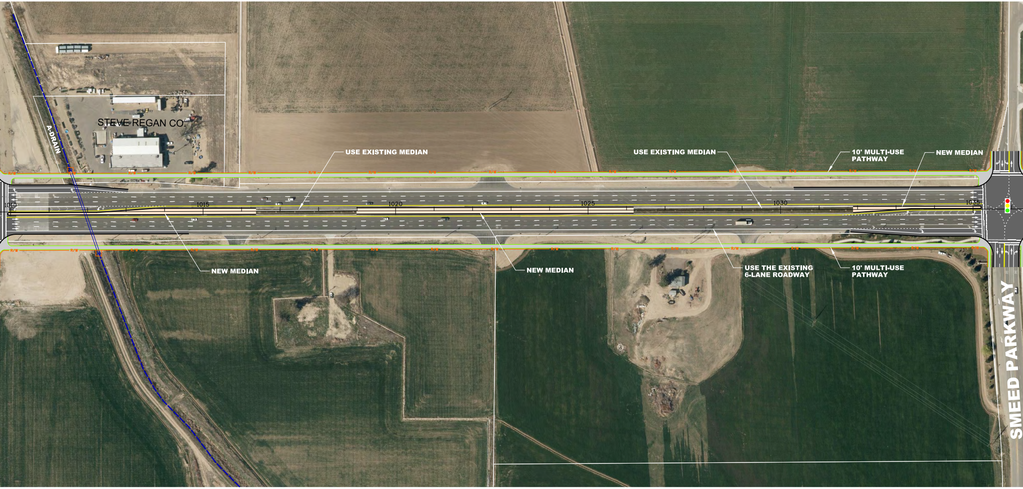
NEW MEDIAN
WIDEN US 20/26 1-LANE IN EACH DIRECTION
NEW MEDIAN
10' MULTI-USE PATHWAY
996
1000
1005
EXISTING SIGNAL
EXISTING SIGNAL
US 20/26
10' MULTI-USE PATHWAY
I-84
IDAHO HEALTH & WELFARE
FLYING J TRAVEL PLAZA
AVIATION WAY

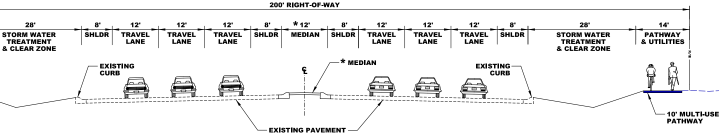

200' RIGHT-OF-WAY
14' PATHWAY & UTILITIES
28' STORM WATER TREATMENT & CLEAR ZONE
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
28' MEDIAN & TURN LANES
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
28' STORM WATER TREATMENT & CLEAR ZONE
14' PATHWAY & UTILITIES
R/W
R/W
CURB
EXISTING MEDIAN
℄
CURB
10' MULTI-USE PATHWAY
PAVEMENT WIDENING
EXISTING PAVEMENT
PAVEMENT WIDENING
10' MULTI-USE PATHWAY

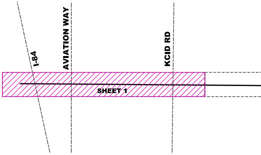
US 20/26 TYPICAL ROADWAY SECTION
I-84 TO SMEED PARKWAY


14'
PATHWAY & UTILITIES
R/W
10' MULTI-USE PATHWAY

US 20/26 CORRIDOR STUDY


A-DRAIN
STEVE REGAN CO.
USE EXISTING MEDIAN
USE EXISTING MEDIAN
10' MULTI-USE PATHWAY
NEW MEDIAN
1010
1015
1020
1025
1030
1035
NEW MEDIAN
NEW MEDIAN
USE THE EXISTING 6-LANE ROADWAY
10' MULTI-USE PATHWAY
SMEED PARKWAY

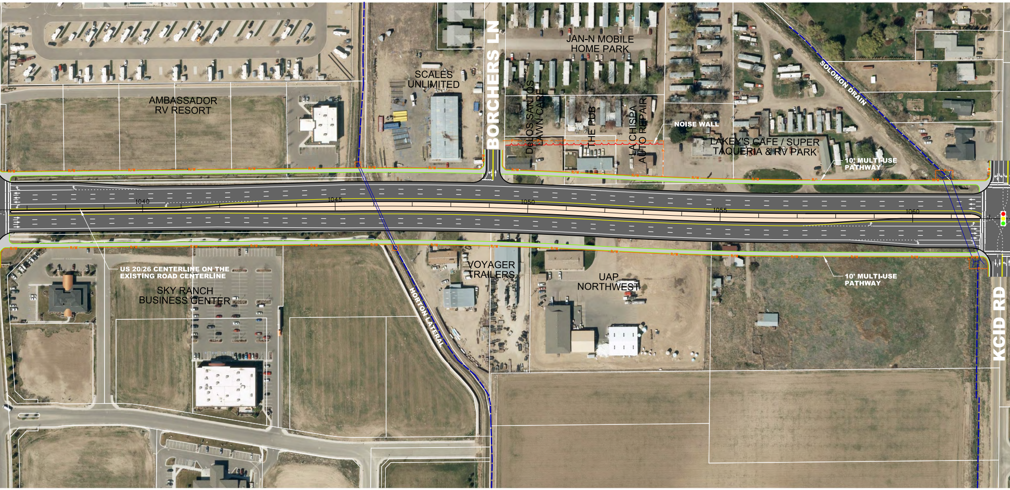

200' RIGHT-OF-WAY
28' STORM WATER TREATMENT & CLEAR ZONE
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
* 12' MEDIAN
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
28' STORM WATER TREATMENT & CLEAR ZONE
14' PATHWAY & UTILITIES
R/W
EXISTING CURB
℄
* MEDIAN
EXISTING CURB
10' MULTI-USE PATHWAY
EXISTING PAVEMENT

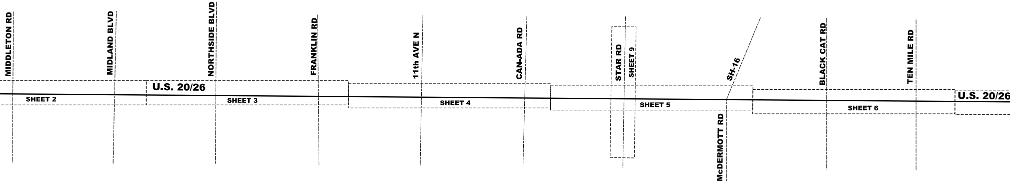

I-84
AVIATION WAY
KCID RD
SHEET 1

US 20/26 TYPICAL ROADWAY SECTION
AVIATION WAY TO SMEED PARKWAY * *

* CONSTRUCT MEDIAN WHERE IT DOES NOT CURRENTLY EXIST TO LIMIT ACCESS TO RIGHT-IN / RIGHT-OUT

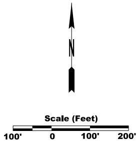
* * SEE SHEET #2 FOR TYPICAL SECTION EAST OF SMEED PARKWAY


AMBASSADOR RV RESORT
SCALES UNLIMITED
BORCHERS LN
JAN-N MOBILE HOME PARK
DELOS SANTOS LAWN CARE
THE PUB
LA CHISPA AUTO REPAIR
NOISE WALL
LAKEY'S CAFE / SUPER TAQUERIA & RV PARK
SOLOMON DRAIN
10' MULTI-USE PATHWAY
R/W
1040
1045
1050
1055
1060
US 20/26 CENTERLINE ON THE EXISTING ROAD CENTERLINE
SKY RANCH BUSINESS CENTER
HORTON LATERAL
VOYAGER TRAILERS
UAP NORTHWEST
10' MULTI-USE PATHWAY
KCID RD


MIDDLETON RD
MIDLAND BLVD
NORTHSIDE BLVD
FRANKLIN RD
11th AVE N
CAN-ADA RD
STAR RD
SHEET 9
SH-16
BLACK CAT RD
TEN MILE RD
U.S. 20/26
SHEET 2
SHEET 3
SHEET 4
SHEET 5
SHEET 6
McDERMOTT RD
U.S. 20/26

PLAN LOCATION

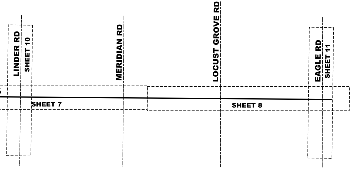
FREEDOM STORAGE CENTER
10' MULTI-USE PATHWAY
1065
1070
1075
US 20/26
US 20/26 CENTERLINE SHIFTED APPROX. 50-FT SOUTH OF THE EXISTING ROAD CENTERLINE
10' MULTI-USE PATHWAY
MATCH LINE, SEE SHEET 2


N
Scale (Feet)
100'
0
100'
200'

NOTE: AERIAL IMAGE TAKEN IN 2013

LEGEND

—R/W—	PROPOSED RIGHT-OF-WAY
—P— —P—	PROPOSED PERMANENT EASEMENT
▨	ROADWAY LAYOUT
🟩	MULTI-USE PATHWAY OR SIDEWALK
—	PROPOSED CURB
▨	230 KV POWER POLE
▨	PROPERTY LINE
🟥	HISTORIC FEATURE BOUNDARY
- - -	EXISTING MAJOR DRAINAGE / IRRIGATION
—	PROPOSED MAJOR DRAINAGE / IRRIGATION
~~	PROPOSED NOISE WALL


LINDER RD
SHEET 10
MERIDIAN RD
LOCUST GROVE RD
EAGLE RD
SHEET 11
SHEET 7
SHEET 8

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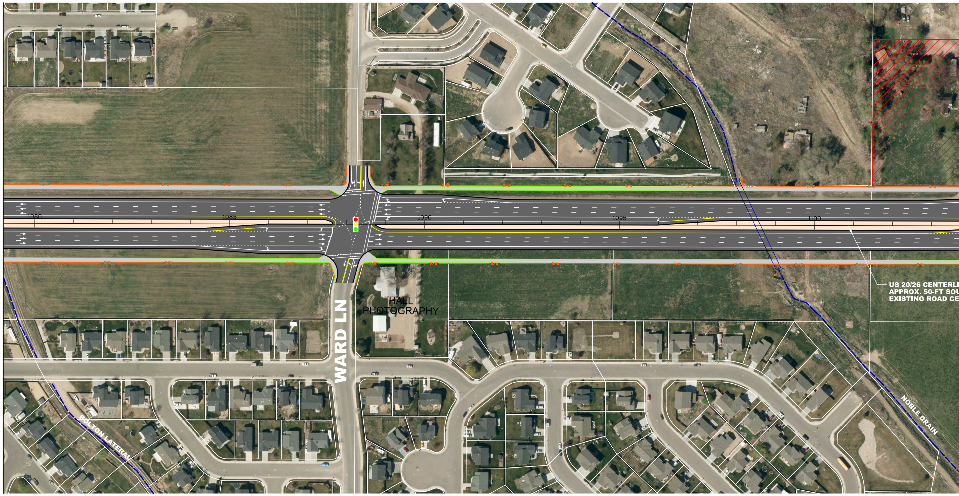
PROJECT NO. STP-3230(106)
KEY NO. 07826

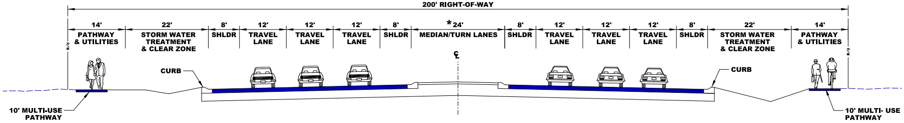
US 20/26 CORRIDOR STUDY CONCEPT LAYOUT

OCTOBER 2016

SHEET
1
OF
11

MATCH LINE, SEE SHEET 1


1080
1085
1090
1095
1100
R/W
WARD LN
HALL PHOTOGRAPHY
BOLTON LATERAL
NOBLE DRAIN
US 20/26 CENTERLI
APPROX. 50-FT SOU
EXISTING ROAD CE

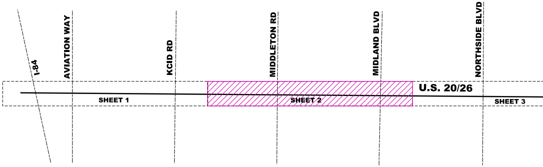

200' RIGHT-OF-WAY
14'
PATHWAY & UTILITIES
22'
STORM WATER TREATMENT & CLEAR ZONE
8'
SHLDR
12'
TRAVEL LANE
12'
TRAVEL LANE
12'
TRAVEL LANE
8'
SHLDR
*24'
MEDIAN/TURN LANES
8'
SHLDR
12'
TRAVEL LANE
12'
TRAVEL LANE
12'
TRAVEL LANE
8'
SHLDR
22'
STORM WATER TREATMENT & CLEAR ZONE
14'
PATHWAY & UTILITIES
R/W
℄
CURB
CURB
R/W
10' MULTI-USE PATHWAY
10' MULTI- USE PATHWAY

US 20/26 TYPICAL ROADWAY SECTION
SMEED PARKWAY TO MERIDIAN ROAD

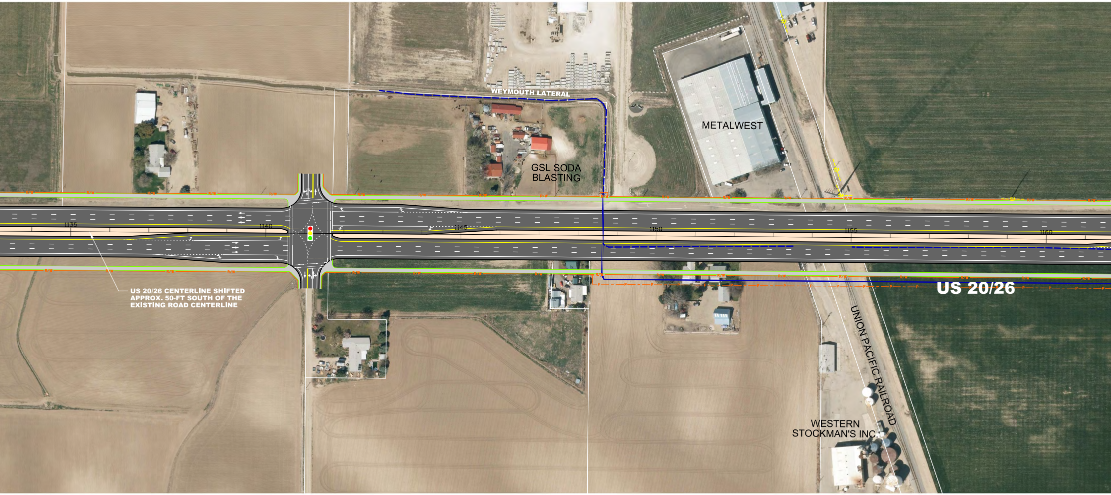
* FINAL MEDIAN WIDTH AND TREATMENT WILL BE DETERMINED DURING PRELIMINARY DESIGN.

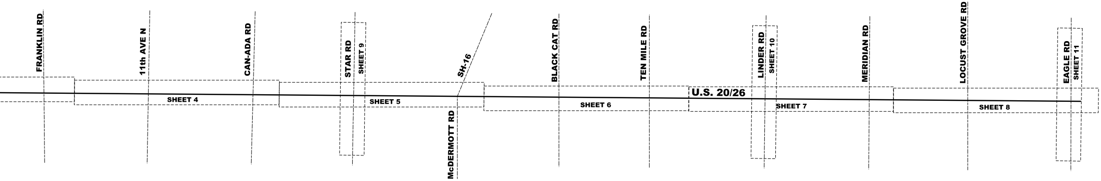
US 20/26 CORRIDO

MASON CREEK
10' MULTI-USE PATHWAY
1105
1110
1115
1120
1125
1130
NE SHIFTED
UTH OF THE
NTERLINE
10' MULTI-USE PATHWAY
US 20/26
MIDDLETON RD
PROPOSED CONTINUOUS FLOW INTERSECTION (HALF)
ALICE'S DAYCARE
G & L WELDING

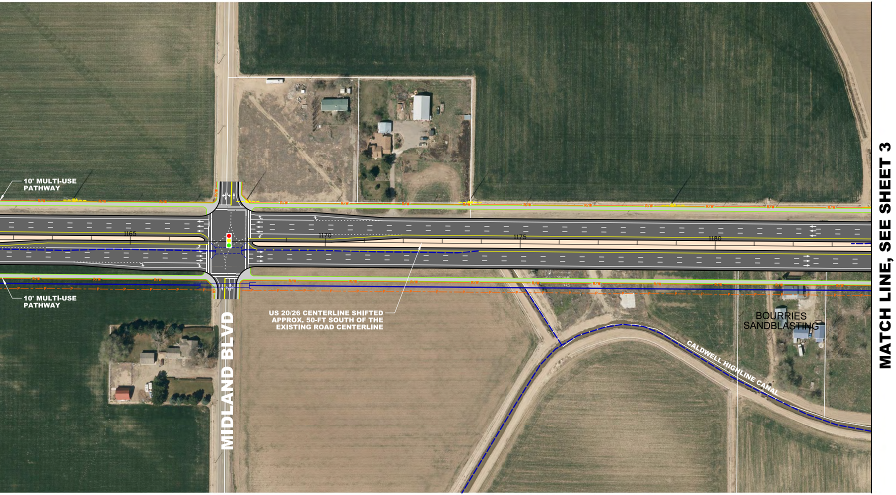

I-84
AVIATION WAY
KCID RD
MIDDLETON RD
MIDLAND BLVD
NORTHSIDE BLVD
U.S. 20/26
SHEET 1
SHEET 2
SHEET 3

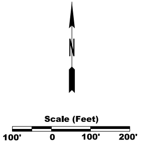
R STUDY


WEYMOUTH LATERAL
GSL SODA BLASTING
METALWEST
1135
1140
1145
1150
1155
1160
R/W
US 20/26 CENTERLINE SHIFTED APPROX. 50-FT SOUTH OF THE EXISTING ROAD CENTERLINE
US 20/26
UNION PACIFIC RAILROAD
WESTERN STOCKMAN'S INC.


FRANKLIN RD
11th AVE N
CAN-ADA RD
STAR RD
SHEET 9
SH-16
McDERMOTT RD
BLACK CAT RD
TEN MILE RD
LINDER RD
SHEET 10
MERIDIAN RD
LOCUST GROVE RD
EAGLE RD
SHEET 11
SHEET 4
SHEET 5
SHEET 6
U.S. 20/26
SHEET 7
SHEET 8

PLAN LOCATION


10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
1165
1170
1175
1180
MIDLAND BLVD
US 20/26 CENTERLINE SHIFTED APPROX. 50-FT SOUTH OF THE EXISTING ROAD CENTERLINE
BOURRIES SANDBLASTING
CALDWELL HIGHLINE CANAL
MATCH LINE, SEE SHEET 3


N
Scale (Feet)
100'
0
100'
200'

NOTE: AERIAL IMAGE TAKEN IN 2013

LEGEND

—R/W—	PROPOSED RIGHT-OF-WAY
—P- - -P—	PROPOSED PERMANENT EASEMENT
▬	ROADWAY LAYOUT
🟩	MULTI-USE PATHWAY OR SIDEWALK
—	PROPOSED CURB
▭	230 KV POWER POLE
▬	PROPERTY LINE
▨	HISTORIC FEATURE BOUNDARY
—‒‒—	EXISTING MAJOR DRAINAGE / IRRIGATION
—▭—	PROPOSED MAJOR DRAINAGE / IRRIGATION
~~	PROPOSED NOISE WALL

IDAHO TRANSPORTATION DEPARTMENT

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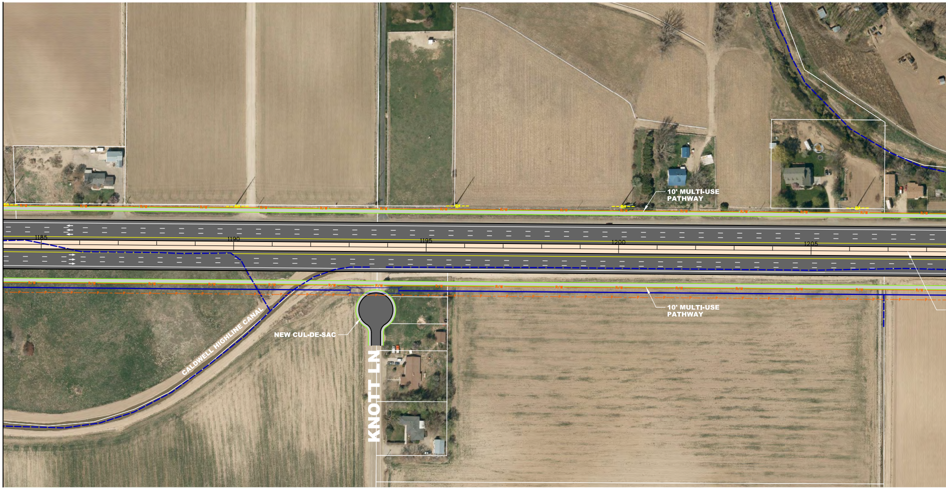
KEY NO. 07826

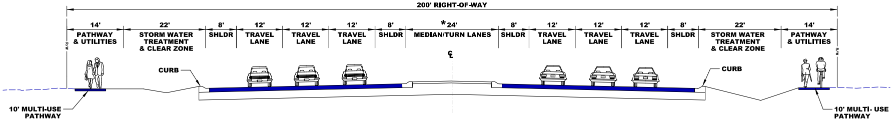
US 20/26 CORRIDOR STUDY CONCEPT LAYOUT

OCTOBER 2016

SHEET
2
OF
11

MATCH LINE, SEE SHEET 2


10' MULTI-USE PATHWAY
1185
1190
1195
1200
1205
10' MULTI-USE PATHWAY
NEW CUL-DE-SAC
CALDWELL HIGHLINE CANAL
KNOTT LN


200' RIGHT-OF-WAY
14' PATHWAY & UTILITIES
22' STORM WATER TREATMENT & CLEAR ZONE
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
*24' MEDIAN/TURN LANES
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
22' STORM WATER TREATMENT & CLEAR ZONE
14' PATHWAY & UTILITIES
R/W
R/W
℄
CURB
CURB
10' MULTI-USE PATHWAY
10' MULTI- USE PATHWAY

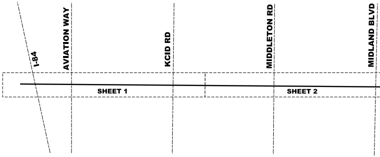
US 20/26 TYPICAL ROADWAY SECTION
SMEED PARKWAY TO MERIDIAN ROAD

* FINAL MEDIAN WIDTH AND TREATMENT WILL BE DETERMINED DURING PRELIMINARY DESIGN.

US 20/26 CO

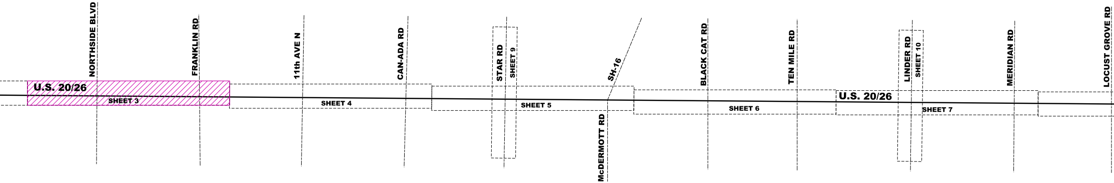
HAUNTED WORLD
FORAGE GENETICS
CALDWELL HIGHLINE CANAL
1210
1215
1220
1225
1230
R/W
US 20/26
NAMPA TRACTOR SALVAGE
NORTHSIDE

US 20/26 CENTERLINE SHIFTED APPROX. 50-FT SOUTH OF THE EXISTING ROAD CENTERLINE

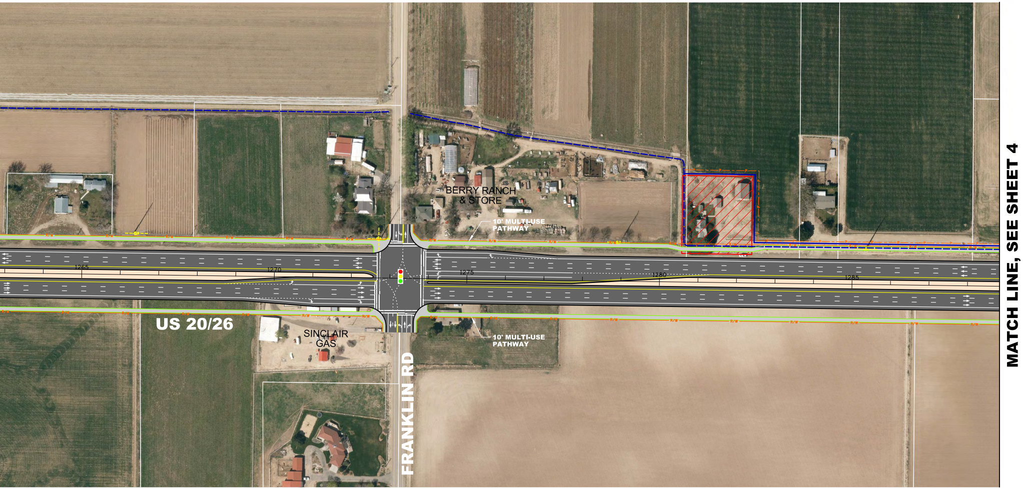

I-84
AVIATION WAY
KCID RD
MIDDLETON RD
MIDLAND BLVD
SHEET 1
SHEET 2

RRIDOR STUDY

FRANKLIN COMMUNITY CHURCH
NEW CUL-DE-SAC
10' MULTI-USE PATHWAY
1235
1240
1245
1250
1255
1260
10' MULTI-USE PATHWAY
NEW CUL-DE-SAC
US 20/26 CENTERLINE SHIFTED APPROX. 50-FT SOUTH OF THE EXISTING ROAD CENTERLINE
MADISON RD


NORTHSIDE BLVD
FRANKLIN RD
11th AVE N
CAN-ADA RD
STAR RD
SHEET 9
SH-16
BLACK CAT RD
TEN MILE RD
LINDER RD
SHEET 10
MERIDIAN RD
LOCUST GROVE RD
U.S. 20/26
SHEET 3
SHEET 4
SHEET 5
SHEET 6
U.S. 20/26
SHEET 7
McDERMOTT RD

PLAN LOCATION


BERRY RANCH & STORE
10' MULTI-USE PATHWAY
1265
1270
1275
1280
1285
R/W
US 20/26
SINCLAIR GAS
10' MULTI-USE PATHWAY
FRANKLIN RD
MATCH LINE, SEE SHEET 4

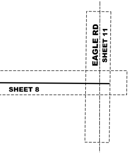
N

Scale (Feet)
100' 0 100' 200'

NOTE: AERIAL IMAGE TAKEN IN 2013

LEGEND

— R/W —	PROPOSED RIGHT-OF-WAY
— P — P —	PROPOSED PERMANENT EASEMENT
▬	ROADWAY LAYOUT
▭	MULTI-USE PATHWAY OR SIDEWALK
—	PROPOSED CURB
▭	230 KV POWER POLE
▭	PROPERTY LINE
▨	HISTORIC FEATURE BOUNDARY
- - -	EXISTING MAJOR DRAINAGE / IRRIGATION
—	PROPOSED MAJOR DRAINAGE / IRRIGATION
~~	PROPOSED NOISE WALL


EAGLE RD
SHEET 11
SHEET 8

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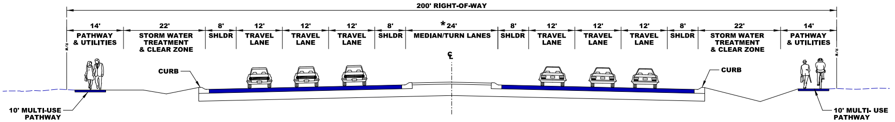
KEY NO. 07826

US 20/26 CORRIDOR STUDY CONCEPT LAYOUT

OCTOBER 2016

SHEET
3
OF
11

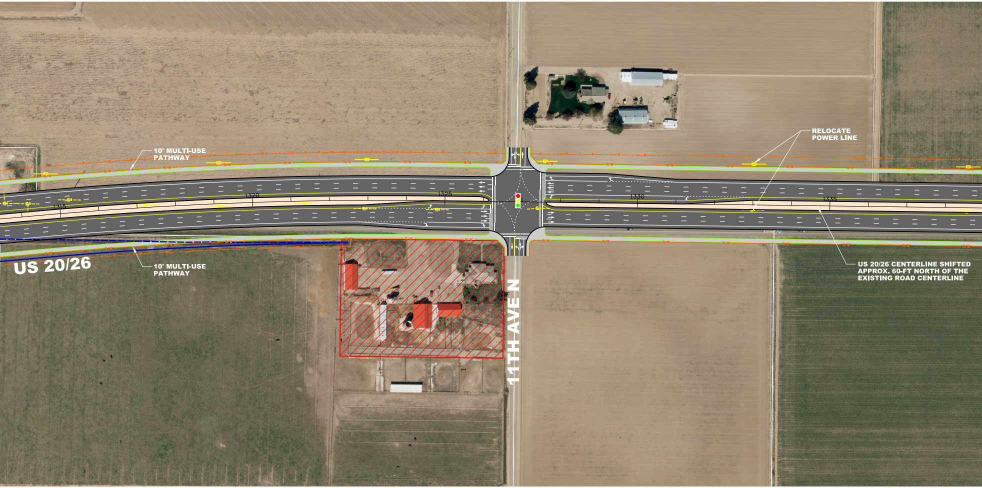
MATCH LINE, SEE SHEET 3
NEW WEST MATERIALS & LANDSCAPING
10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
1290
1295
1300
1305
1310
US 20/26 CENTERLINE SHIFTED APPROX. 50-FT SOUTH OF THE EXISTING ROAD CENTERLINE
NEW CUL-DE-SAC
PRESCOTT LN

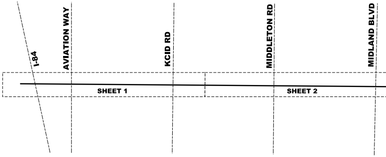

200' RIGHT-OF-WAY
14' PATHWAY & UTILITIES
22' STORM WATER TREATMENT & CLEAR ZONE
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
*24' MEDIAN/TURN LANES
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
22' STORM WATER TREATMENT & CLEAR ZONE
14' PATHWAY & UTILITIES
R/W
R/W
℄
CURB
CURB
10' MULTI-USE PATHWAY
10' MULTI- USE PATHWAY

US 20/26 TYPICAL ROADWAY SECTION
SMEED PARKWAY TO MERIDIAN ROAD

* FINAL MEDIAN WIDTH AND TREATMENT WILL BE DETERMINED DURING PRELIMINARY DESIGN.

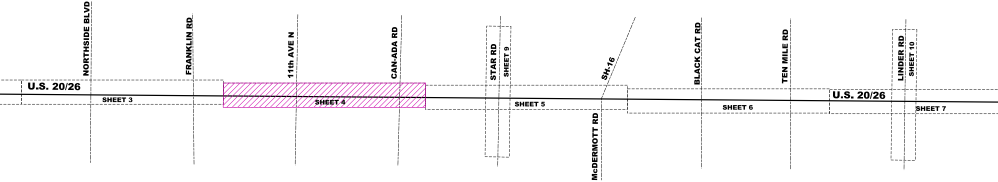
US 20/26 CO


10' MULTI-USE PATHWAY
RELOCATE POWER LINE
1315
1320
1325
1330
1335
US 20/26
10' MULTI-USE PATHWAY
11TH AVE N
US 20/26 CENTERLINE SHIFTED APPROX. 60-FT NORTH OF THE EXISTING ROAD CENTERLINE

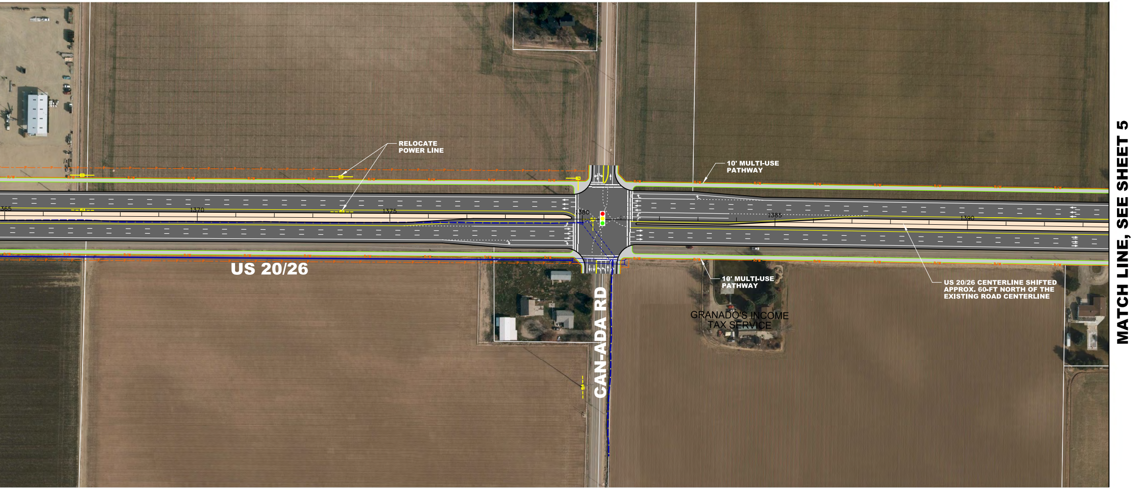

I-84
AVIATION WAY
KCID RD
MIDDLETON RD
MIDLAND BLVD
SHEET 1
SHEET 2

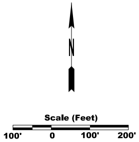
RRIDOR STUDY

SYNGENTA
10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
1340
1345
1350
1355
1360


NORTHSIDE BLVD
FRANKLIN RD
11th AVE N
CAN-ADA RD
STAR RD
SHEET 9
SH-16
McDERMOTT RD
BLACK CAT RD
TEN MILE RD
LINDER RD
SHEET 10
U.S. 20/26
SHEET 3
SHEET 4
SHEET 5
SHEET 6
U.S. 20/26
SHEET 7

PLAN LOCATION

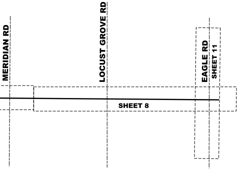

RELOCATE POWER LINE
10' MULTI-USE PATHWAY
1365
1370
1375
1380
1385
1390
US 20/26
10' MULTI-USE PATHWAY
US 20/26 CENTERLINE SHIFTED APPROX. 60-FT NORTH OF THE EXISTING ROAD CENTERLINE
GRANADO'S INCOME TAX SERVICE
CAN-ADA RD
MATCH LINE, SEE SHEET 5


N
Scale (Feet)
100'
0
100'
200'

NOTE: AERIAL IMAGE TAKEN IN 2013

LEGEND

— R/W —	PROPOSED RIGHT-OF-WAY
— P — P —	PROPOSED PERMANENT EASEMENT
▨	ROADWAY LAYOUT
🟩	MULTI-USE PATHWAY OR SIDEWALK
—	PROPOSED CURB
●	230 KV POWER POLE
▨	PROPERTY LINE
🟥	HISTORIC FEATURE BOUNDARY
- - -	EXISTING MAJOR DRAINAGE / IRRIGATION
—	PROPOSED MAJOR DRAINAGE / IRRIGATION
~~	PROPOSED NOISE WALL


MERIDIAN RD
LOCUST GROVE RD
EAGLE RD
SHEET 11
SHEET 8

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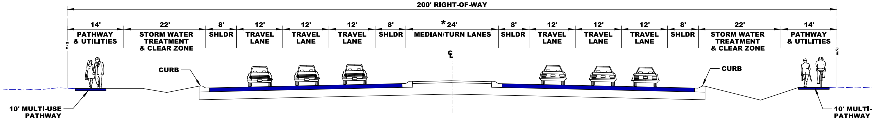
PROJECT NO. STP-3230(106)
KEY NO. 07826

US 20/26 CORRIDOR STUDY CONCEPT LAYOUT

OCTOBER 2016

SHEET
4
OF
11

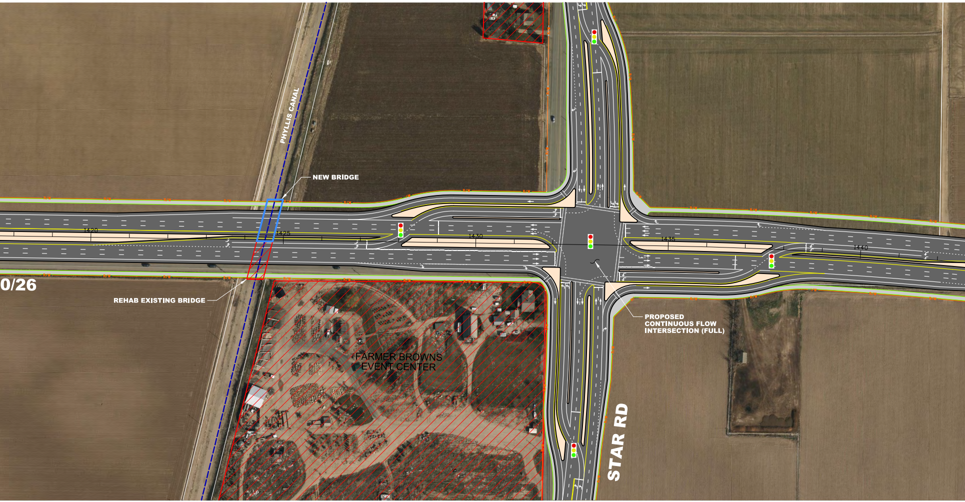
MATCH LINE, SEE SHEET 4
10' MULTI-USE PATHWAY
1395
1400
1405
1410
1415
10' MULTI-USE PATHWAY
US 20/26 CENTERLINE SHIFTED APPROX. 60-FT NORTH OF THE EXISTING ROAD CENTERLINE
US 2
LANDSCAPES UNLIMITED

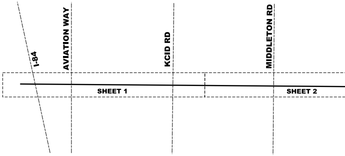

200' RIGHT-OF-WAY
14' PATHWAY & UTILITIES
22' STORM WATER TREATMENT & CLEAR ZONE
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
*24' MEDIAN/TURN LANES
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
22' STORM WATER TREATMENT & CLEAR ZONE
14' PATHWAY & UTILITIES
R/W
℄
R/W
CURB
CURB
10' MULTI-USE PATHWAY
10' MULTI-
PATHWAY

US 20/26 TYPICAL ROADWAY SECTION
SMEED PARKWAY TO MERIDIAN ROAD

* FINAL MEDIAN WIDTH AND TREATMENT WILL BE DETERMINED DURING PRELIMINARY DESIGN.

US 20/26 C

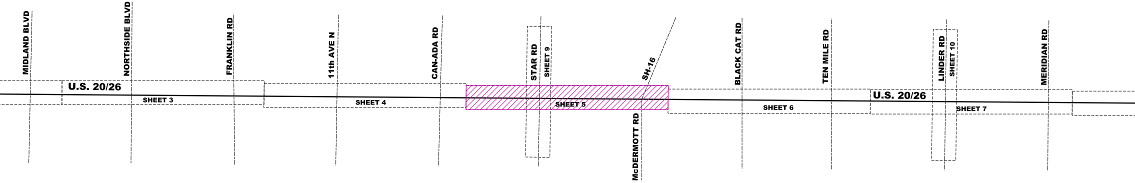

PHYLLIS CANAL
NEW BRIDGE
1420
1425
1430
1435
1440
0/26
REHAB EXISTING BRIDGE
FARMER BROWNS
EVENT CENTER
PROPOSED
CONTINUOUS FLOW
INTERSECTION (FULL)
STAR RD


I-84
AVIATION WAY
KCID RD
MIDDLETON RD
SHEET 1
SHEET 2

USE

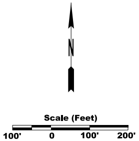
ORRIDOR STUDY

10' MULTI-USE PATHWAY
1445
1450
1455
1460
1465
1470
10' MULTI-USE PATHWAY
US 20/26 CENTERLINE ON EXISTING ROAD CENTERLINE
US 20/26
IMPROVEMENTS IN THIS AREA WERE EVALUATED IN PROJ. NO. A009(963), SH-16, I-84 TO SH-44 ENVIRONMENTAL STUDY


MIDLAND BLVD
NORTHSIDE BLVD
FRANKLIN RD
11th AVE N
CAN-ADA RD
STAR RD
SHEET 9
SH-16
BLACK CAT RD
TEN MILE RD
LINDER RD
SHEET 10
MERIDIAN RD
U.S. 20/26
SHEET 3
SHEET 4
SHEET 5
SHEET 6
U.S. 20/26
SHEET 7
McDERMOTT RD

PLAN LOCATION

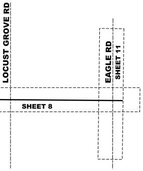
SH-16
1475
1480
1485
1490
1495
MCDERMOTT RD
FUTURE SH-16, I-84 TO SH-44 IMPROVEMENTS
MATCH LINE, SEE SHEET 6


N
Scale (Feet)
100'
0
100'
200'

NOTE: AERIAL IMAGE TAKEN IN 2013

LEGEND

— R/W —	PROPOSED RIGHT-OF-WAY
— P —	PROPOSED PERMANENT EASEMENT
▬	ROADWAY LAYOUT
🟩	MULTI-USE PATHWAY OR SIDEWALK
—	PROPOSED CURB
▭	230 KV POWER POLE
▬	PROPERTY LINE
▨	HISTORIC FEATURE BOUNDARY
- - -	EXISTING MAJOR DRAINAGE / IRRIGATION
—	PROPOSED MAJOR DRAINAGE / IRRIGATION
⌇	PROPOSED NOISE WALL


LOCUST GROVE RD
EAGLE RD
SHEET 11
SHEET 8

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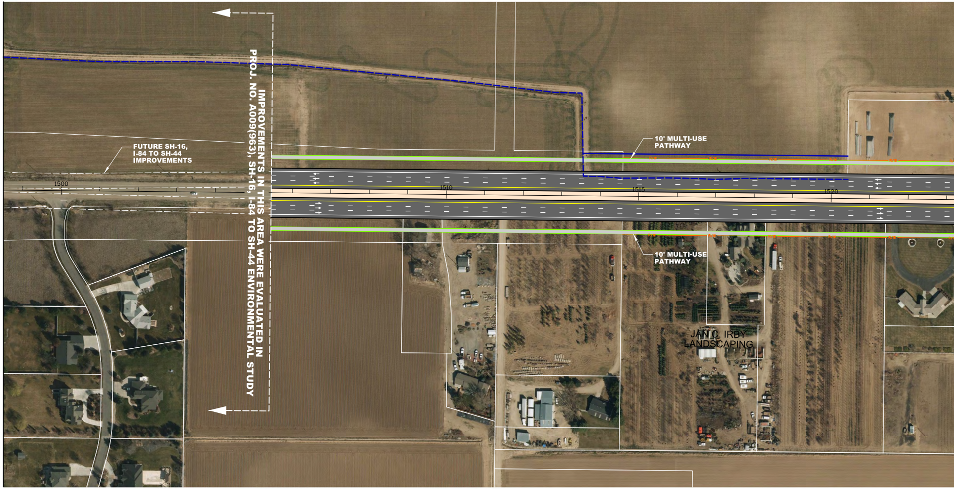
PROJECT NO. STP-3230(106)
KEY NO. 07826

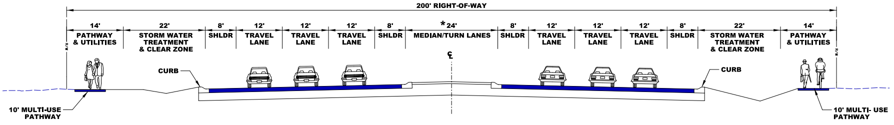
US 20/26 CORRIDOR STUDY
CONCEPT LAYOUT

OCTOBER 2016

SHEET
5
OF
11

MATCH LINE, SEE SHEET 5

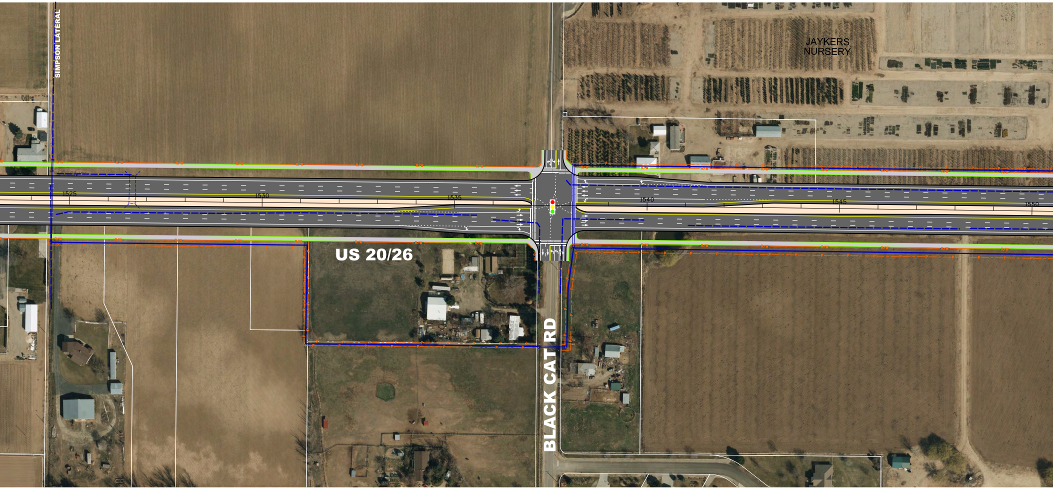

IMPROVEMENTS IN THIS AREA WERE EVALUATED IN PROJ. NO. A009(963), SH-16, I-84 TO SH-44 ENVIRONMENTAL STUDY
FUTURE SH-16, I-84 TO SH-44 IMPROVEMENTS
1500
1510
1515
1520
10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
JAN C. IRBY LANDSCAPING

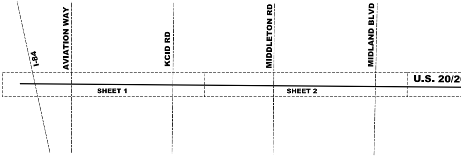

200' RIGHT-OF-WAY
14' PATHWAY & UTILITIES
22' STORM WATER TREATMENT & CLEAR ZONE
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
*24' MEDIAN/TURN LANES
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
22' STORM WATER TREATMENT & CLEAR ZONE
14' PATHWAY & UTILITIES
R/W
R/W
℄
CURB
CURB
10' MULTI-USE PATHWAY
10' MULTI- USE PATHWAY

US 20/26 TYPICAL ROADWAY SECTION
SMEED PARKWAY TO MERIDIAN ROAD

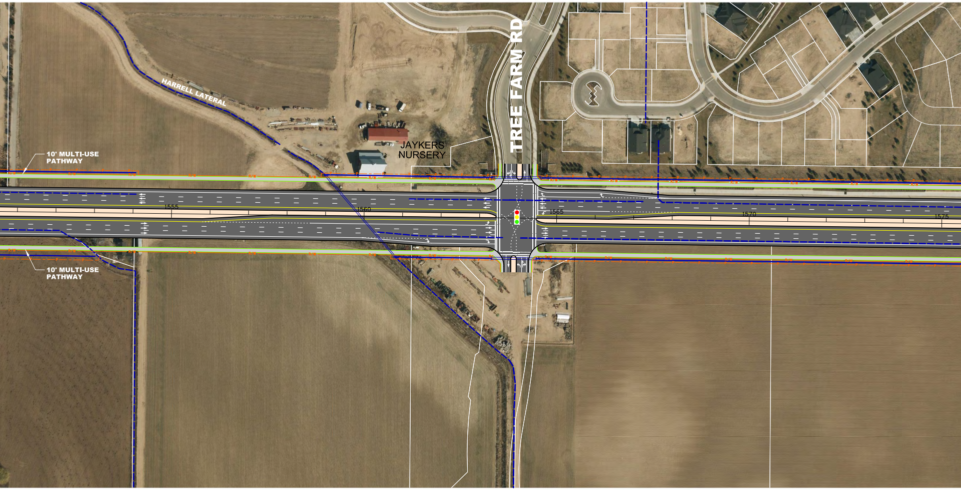
* FINAL MEDIAN WIDTH AND TREATMENT WILL BE DETERMINED DURING PRELIMINARY DESIGN.

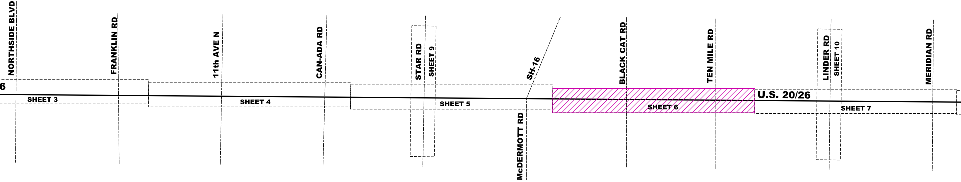
US 20/26 CORRI


SIMPSON LATERAL
JAYKERS NURSERY
1525
1530
1535
1540
1545
1550
US 20/26
BLACK CAT RD

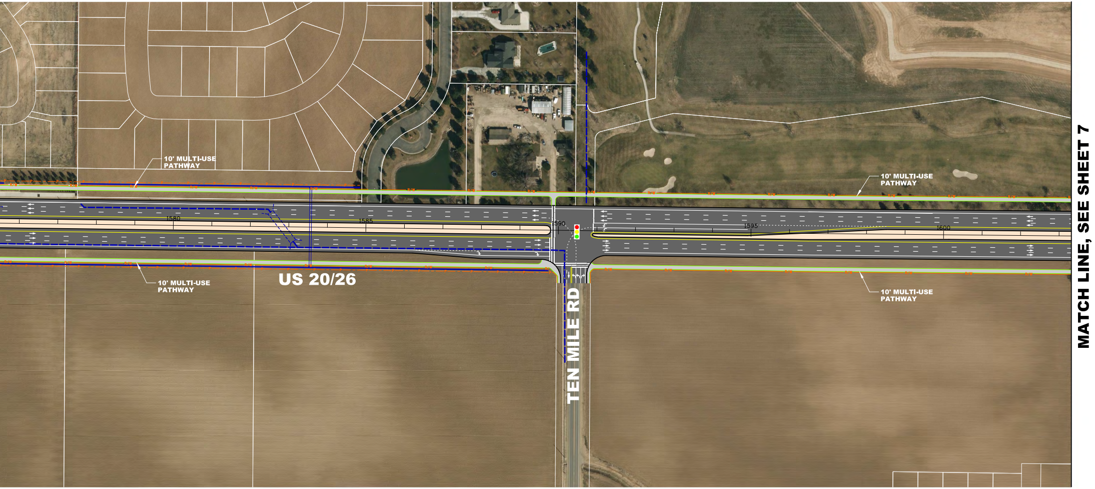

I-84
AVIATION WAY
KCID RD
MIDDLETON RD
MIDLAND BLVD
U.S. 20/2
SHEET 1
SHEET 2

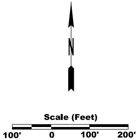
IDOR STUDY


HARRELL LATERAL
10' MULTI-USE PATHWAY
JAYKERS NURSERY
TREE FARM RD
1555
1560
1565
1570
1575
10' MULTI-USE PATHWAY


NORTHSIDE BLVD
FRANKLIN RD
11th AVE N
CAN-ADA RD
STAR RD
SHEET 9
SH-16
BLACK CAT RD
TEN MILE RD
LINDER RD
SHEET 10
MERIDIAN RD
6
SHEET 3
SHEET 4
SHEET 5
SHEET 6
U.S. 20/26
SHEET 7
McDERMOTT RD

PLAN LOCATION

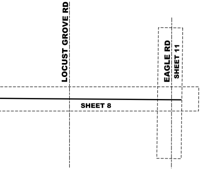

10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
1580
1585
1590
1595
1600
US 20/26
TEN MILE RD
MATCH LINE, SEE SHEET 7


N
Scale (Feet)
100'
0
100'
200'

NOTE: AERIAL IMAGE TAKEN IN 2013

LEGEND

R/W	PROPOSED RIGHT-OF-WAY
P P	PROPOSED PERMANENT EASEMENT
	ROADWAY LAYOUT
🟩	MULTI-USE PATHWAY OR SIDEWALK
—	PROPOSED CURB
	230 KV POWER POLE
	PROPERTY LINE
▨	HISTORIC FEATURE BOUNDARY
	EXISTING MAJOR DRAINAGE / IRRIGATION
	PROPOSED MAJOR DRAINAGE / IRRIGATION
	PROPOSED NOISE WALL


LOCUST GROVE RD
EAGLE RD
SHEET 11
SHEET 8

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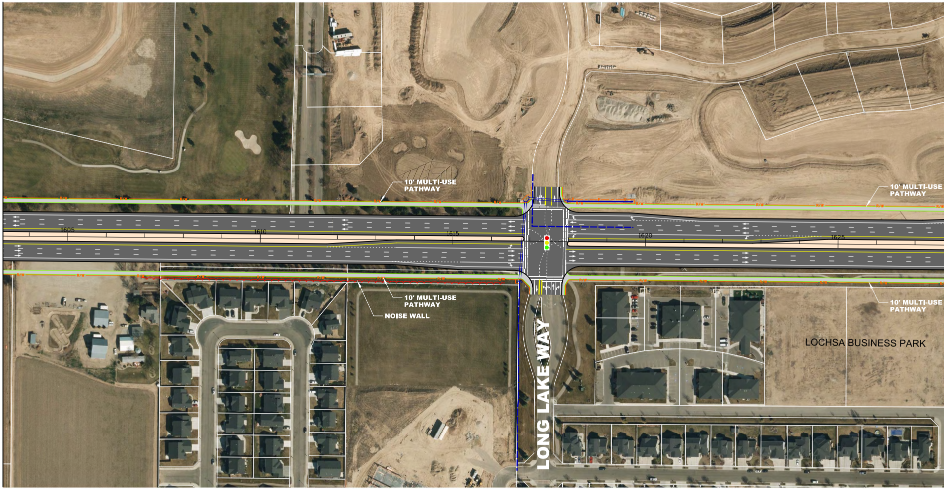
KEY NO. 07826

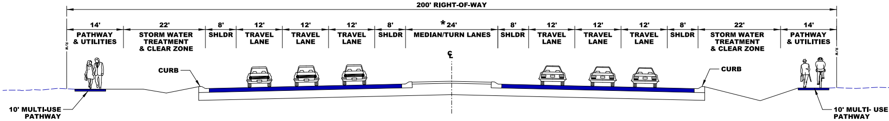
US 20/26 CORRIDOR STUDY CONCEPT LAYOUT

OCTOBER 2016

SHEET
6
OF
11

MATCH LINE, SEE SHEET 6

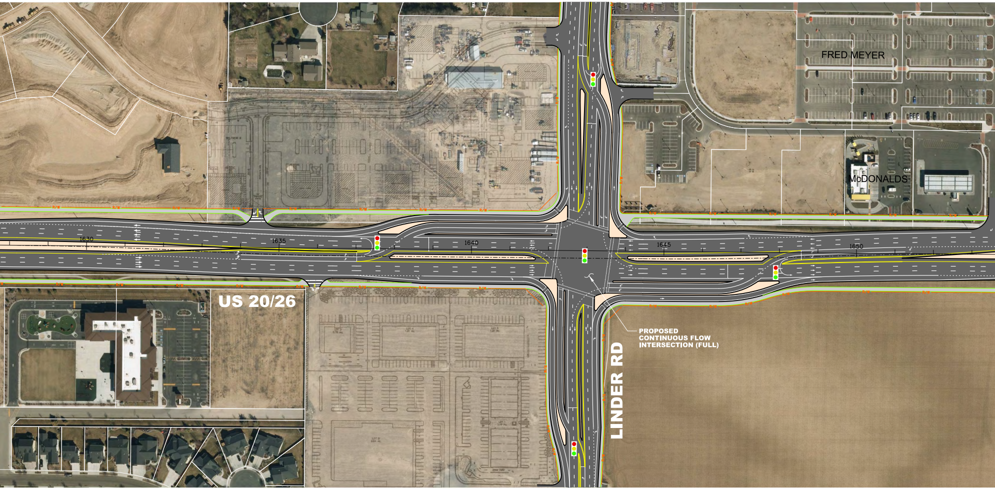

10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
10' MULTI-USE PATHWAY
NOISE WALL
1605
1610
1615
1620
1625
R/W
LONG LAKE WAY
LOCHSA BUSINESS PARK

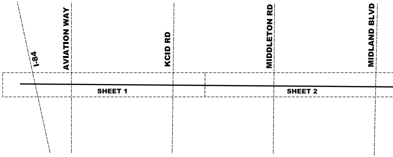

200' RIGHT-OF-WAY
14' PATHWAY & UTILITIES
22' STORM WATER TREATMENT & CLEAR ZONE
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
*24' MEDIAN/TURN LANES
8' SHLDR
12' TRAVEL LANE
12' TRAVEL LANE
12' TRAVEL LANE
8' SHLDR
22' STORM WATER TREATMENT & CLEAR ZONE
14' PATHWAY & UTILITIES
R/W
℄
CURB
CURB
R/W
10' MULTI-USE PATHWAY
10' MULTI- USE PATHWAY

US 20/26 TYPICAL ROADWAY SECTION
SMEED PARKWAY TO MERIDIAN ROAD

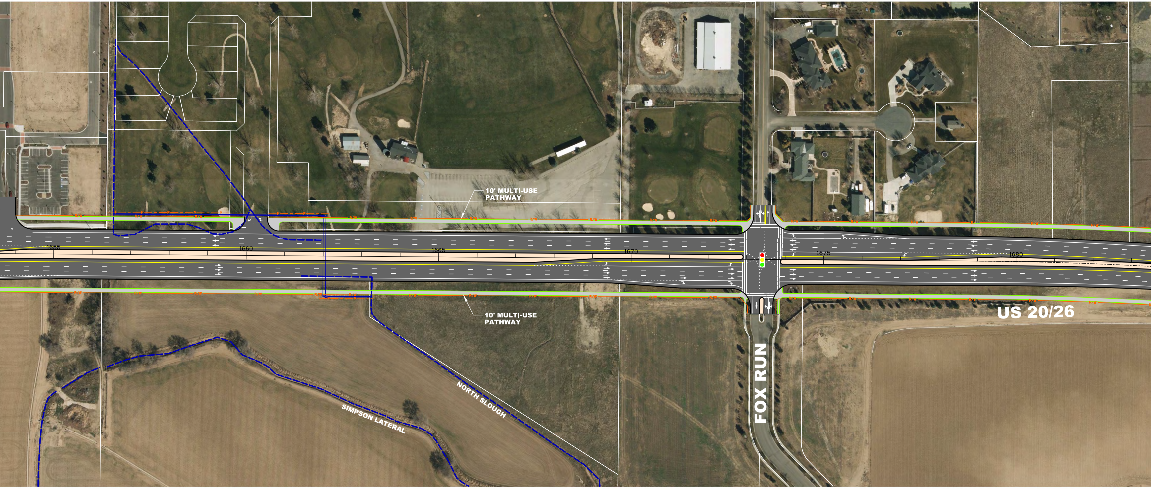
* FINAL MEDIAN WIDTH AND TREATMENT WILL BE DETERMINED DURING PRELIMINARY DESIGN.

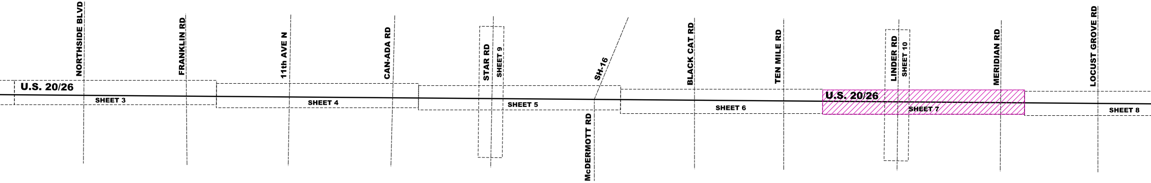
US 20/26 CO


FRED MEYER
McDONALDS
US 20/26
LINDER RD
PROPOSED
CONTINUOUS FLOW
INTERSECTION (FULL)
1630
1635
1640
1645
1650

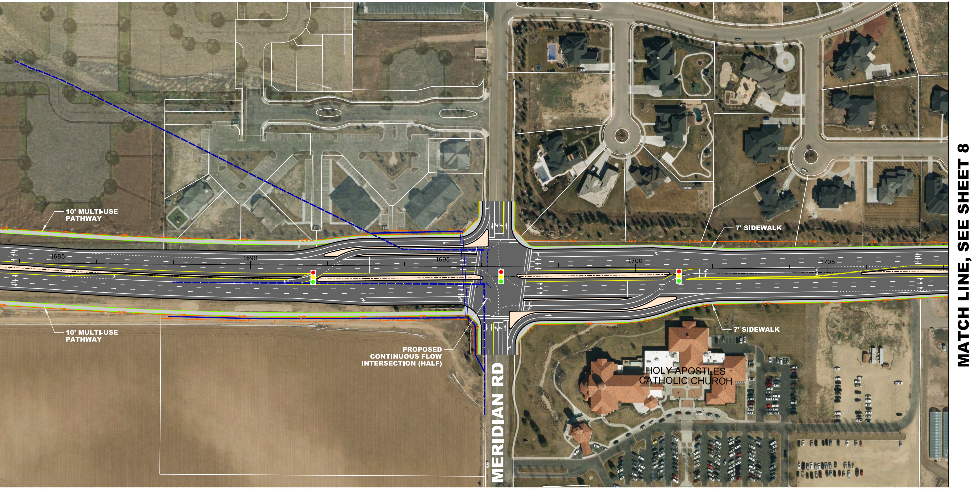

I-84
AVIATION WAY
KCID RD
MIDDLETON RD
MIDLAND BLVD
SHEET 1
SHEET 2

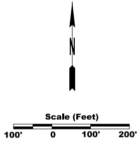
RRIDOR STUDY


10' MULTI-USE PATHWAY
1655
1660
1665
1670
1675
1680
10' MULTI-USE PATHWAY
US 20/26
FOX RUN
NORTH SLOUGH
SIMPSON LATERAL


NORTHSIDE BLVD
FRANKLIN RD
11th AVE N
CAN-ADA RD
STAR RD
SHEET 9
SH-16
BLACK CAT RD
TEN MILE RD
LINDER RD
SHEET 10
MERIDIAN RD
LOCUST GROVE RD
U.S. 20/26
SHEET 3
SHEET 4
SHEET 5
SHEET 6
U.S. 20/26
SHEET 7
SHEET 8
McDERMOTT RD

PLAN LOCATION

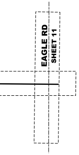

10' MULTI-USE PATHWAY
7' SIDEWALK
1685
1690
1695
1700
1705
10' MULTI-USE PATHWAY
PROPOSED CONTINUOUS FLOW INTERSECTION (HALF)
7' SIDEWALK
HOLY APOSTLES CATHOLIC CHURCH
MERIDIAN RD
MATCH LINE, SEE SHEET 8


N
Scale (Feet)
100'
0
100'
200'

NOTE: AERIAL IMAGE TAKEN IN 2013

LEGEND

—R/W—	PROPOSED RIGHT-OF-WAY
—P— - —P—	PROPOSED PERMANENT EASEMENT
▨	ROADWAY LAYOUT
🟩	MULTI-USE PATHWAY OR SIDEWALK
—	PROPOSED CURB
▨	230 KV POWER POLE
▨	PROPERTY LINE
🟥	HISTORIC FEATURE BOUNDARY
- - -	EXISTING MAJOR DRAINAGE / IRRIGATION
—	PROPOSED MAJOR DRAINAGE / IRRIGATION
~~	PROPOSED NOISE WALL


EAGLE RD
SHEET 11

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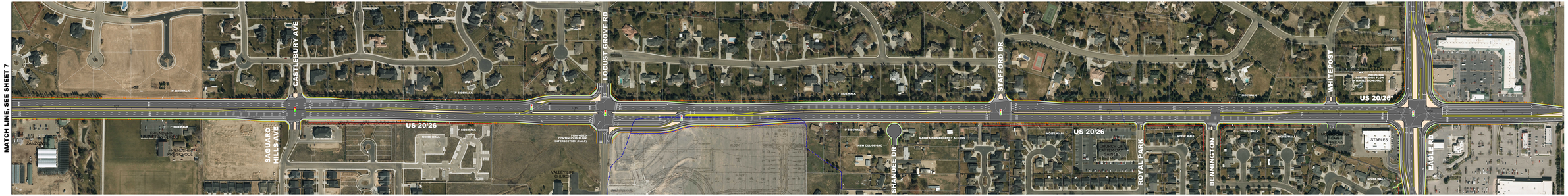
KEY NO. 07826

US 20/26 CORRIDOR STUDY
CONCEPT LAYOUT

OCTOBER 2016

SHEET
7
OF
11

US 20/26 CORRIDOR STUDY

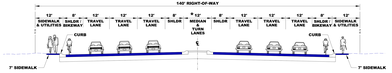


NOTE: AERIAL IMAGE TAKEN IN 2013

Scale (Feet)
100' 0 100' 200'

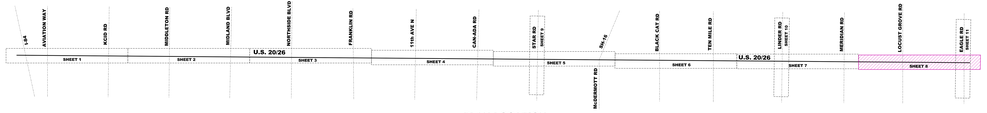
LEGEND

- PROPOSED RIGHT-OF-WAY
- PROPOSED PERMANENT EASEMENT
- ROADWAY LAYOUT
- MULTI-USE PATHWAY OR SIDEWALK
- PROPOSED CURB
- 230 KV POWER POLE
- PROPERTY LINE
- HISTORIC FEATURE BOUNDARY
- EXISTING MAJOR DRAINAGE / IRRIGATION
- PROPOSED MAJOR DRAINAGE / IRRIGATION
- PROPOSED NOISE WALL



US 20/26 TYPICAL ROADWAY SECTION
MERIDIAN ROAD TO EAGLE ROAD

* FINAL MEDIAN WIDTH AND TREATMENT WILL BE DETERMINED DURING PRELIMINARY DESIGN.



PLAN LOCATION

IDAHO TRANSPORTATION DEPARTMENT

Parametrix

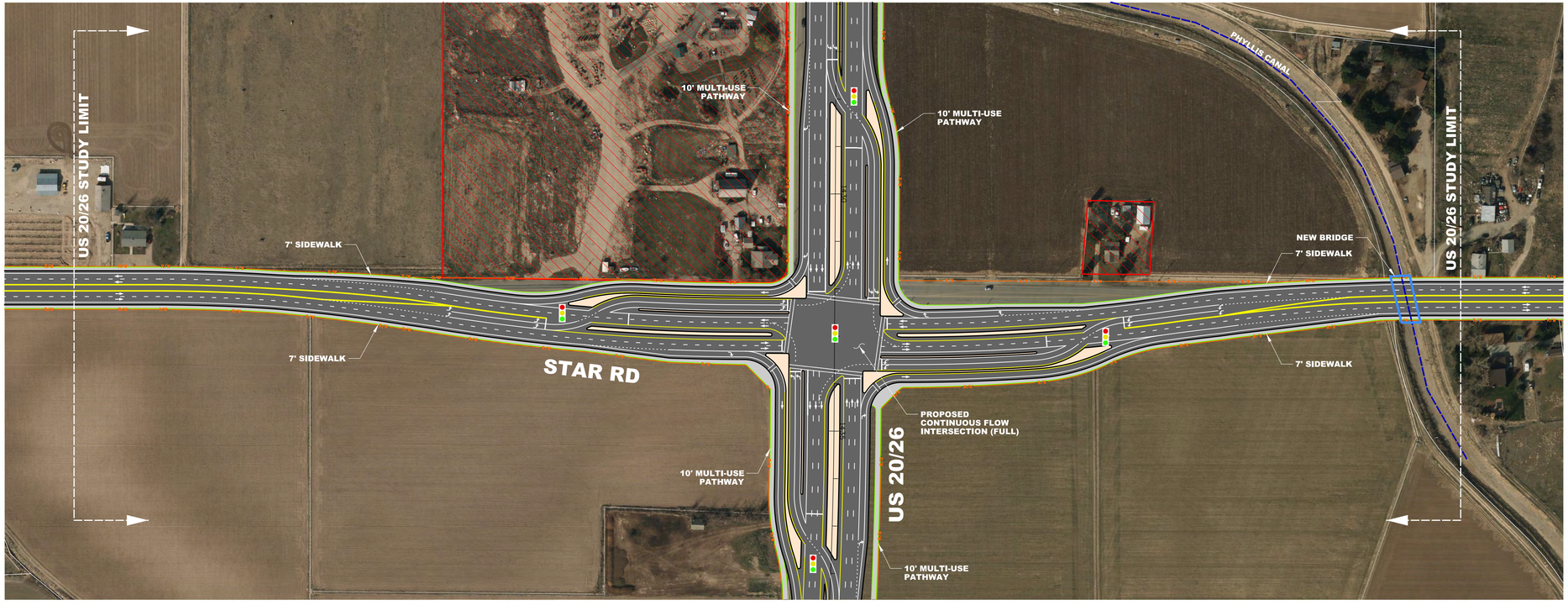
PROJECT NO. STP-3230(108)
KEY NO. 07826

US 20/26 CORRIDOR STUDY
CONCEPT LAYOUT

OCTOBER 2016

SHEET 8 of 11

US 20/26 CORRIDOR STUDY



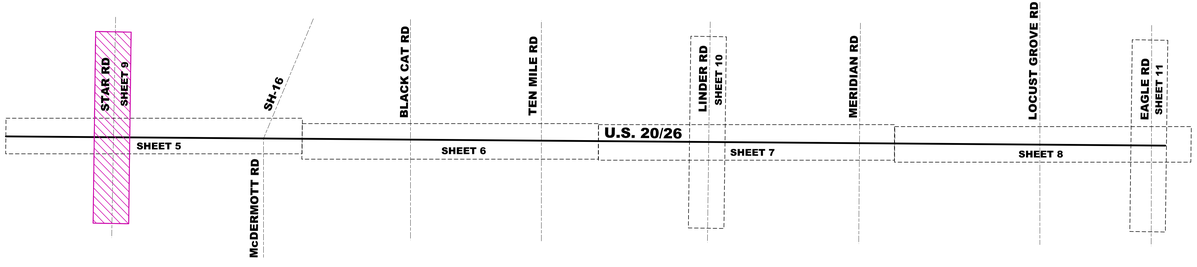
Scale (Feet)

100' 0 100' 200'

NOTE: AERIAL IMAGE TAKEN IN 2013

LEGEND

- PROPOSED RIGHT-OF-WAY
- PROPOSED PERMANENT EASEMENT
- ROADWAY LAYOUT
- MULTI-USE PATHWAY OR SIDEWALK
- PROPOSED CURB
- 230 KV POWER POLE
- PROPERTY LINE
- HISTORIC FEATURE BOUNDARY
- EXISTING MAJOR DRAINAGE / IRRIGATION
- PROPOSED MAJOR DRAINAGE / IRRIGATION
- PROPOSED NOISE WALL



PLAN LOCATION

IDAHO TRANSPORTATION DEPARTMENT

Parametrix
ENGINEERING . PLANNING . ENVIRONMENTAL SCIENCES
2761 W RIVERSIDE DRIVE, SUITE 201 | BOISE, ID 83714
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PROJECT NO. STP-3230(106)
KEY NO. 07826

US 20/26 CORRIDOR STUDY
CONCEPT LAYOUT

OCTOBER 2016

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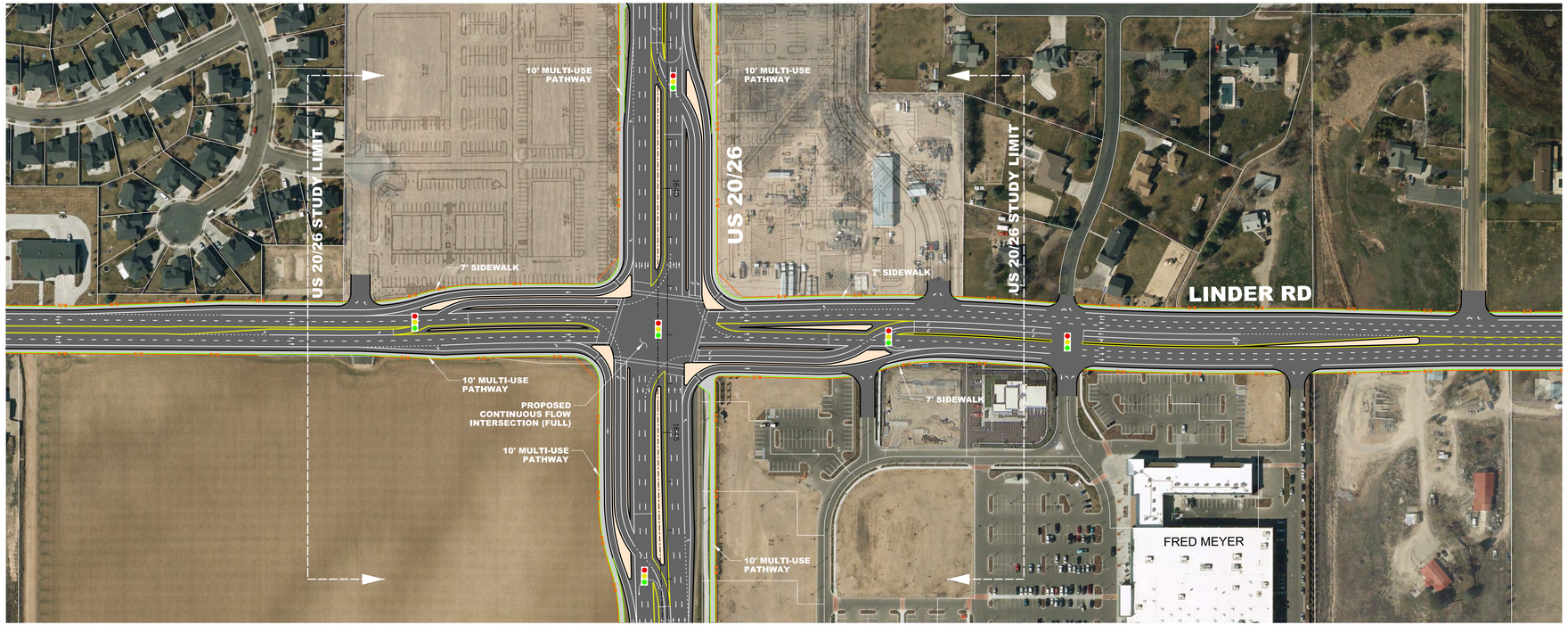
US 20/26 CORRIDOR STUDY



Scale (Feet)

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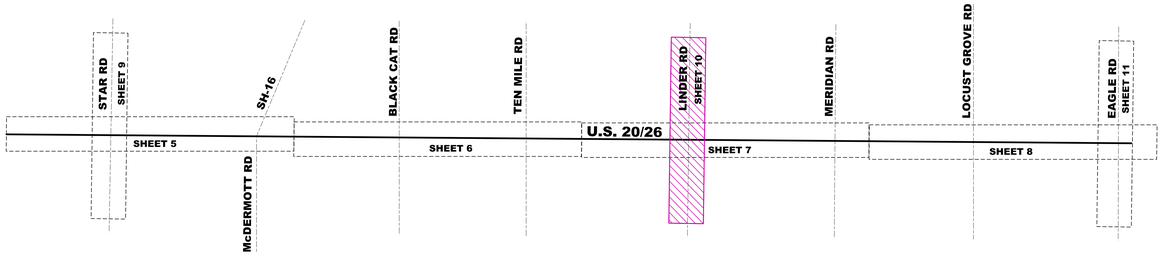

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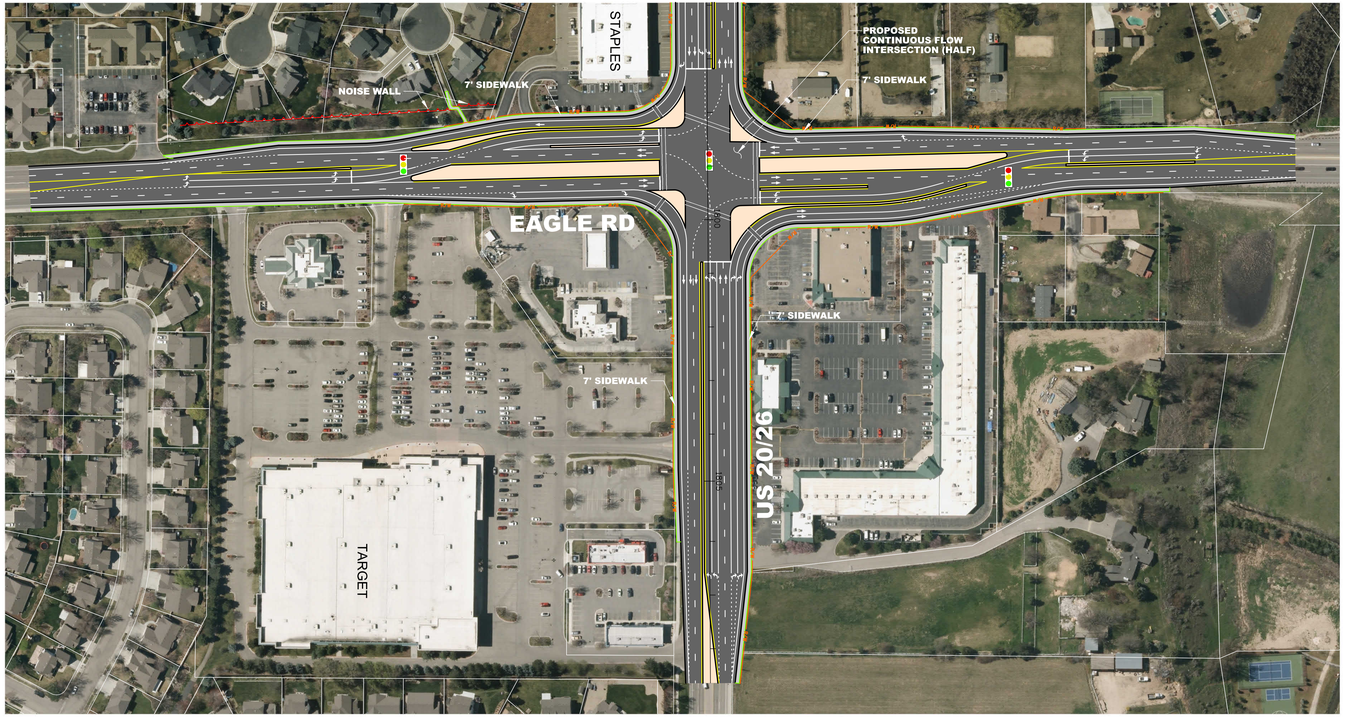
SHEET 10 OF 11

US 20/26 CORRIDOR STUDY



Scale (Feet)

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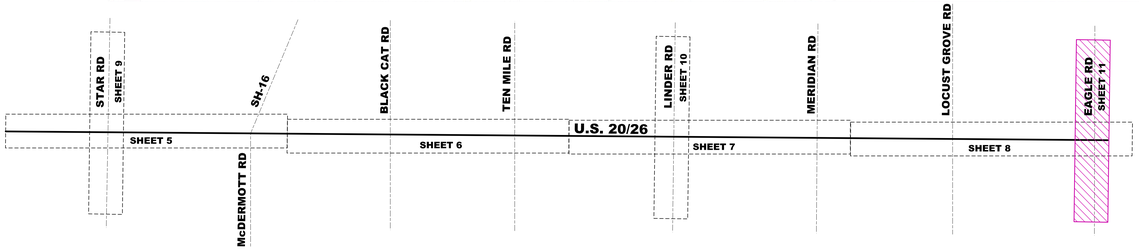

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